

SEQUENCE LISTING

<110> Brandt, Kevin S.
Gaines, Patrick J.
Stinchcomb, Dan T.
Wisniewski, Nancy

<120> FLEA HEAD, NERVE CORD, HINDGUT AND MALPIGHIAN TUBULE
NUCLEIC ACID MOLECULES, PROTEINS AND USES THEREOF

<130> FC-6-C1

<140> not yet assigned

<141> 2000-04-07

<150> 60/128,704

<151> 1999-04-09

<160> 1959

<170> PatentIn Ver. 2.1

<210> 1

<211> 2057

<212> DNA

<213> Ctenocephalides felis

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<222> (152)..(1303)

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00991936-112101

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 35 40 45
 Ala Gly Ile Val Val Asp Ser Ser Gly Arg Ile Lys Ser Ile Ile Ser
 50 55 60
 Gly Glu Glu Val Glu Arg Ile Ala Asn Glu Thr Lys Val Glu Val Leu
 65 70 75 80
 Asp Tyr Gly Gln Phe Ser Ile Trp Pro Gly Val Ile Asp Ser His Val
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 His Val Asn Glu Pro Gly Arg Glu Ser Trp Glu Gly Tyr Thr Thr Ala
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 Thr Lys Ala Ala Ala Trp Gly Gly Ile Thr Thr Ile Val Asp Met Pro
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0991936 "112101

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Gly	Val	Arg	Gly	Phe	Lys	Cys	Phe	Thr	Ser	Glu	Ser	Gly	Val	Asp	Glu	180	185	190	
Phe	Pro	Gln	Val	Thr	Lys	Asn	Asp	Leu	Glu	Met	Ala	Leu	Lys	Glu	Leu	195	200	205	
Gln	Lys	Ala	Asn	Ser	Val	Leu	Leu	Tyr	His	Ala	Glu	Leu	Pro	Ala	Pro	210	215	220	
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Asp	Leu	Thr	Lys	Lys	Tyr	Lys	Val	Arg	Ser	His	Ile	Val	His	Leu	Ser	260	265	270	
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Glu	Glu	Ser	Asn	Gln	Glu	Lys	Leu	Trp	Gln	Ala	Leu	Glu	Asn	Arg	Asp	325	330	335	
Ile	Asp	Met	Val	Val	Ser	Asp	His	Ser	Pro	Ser	Pro	Ala	Ala	Leu	Lys	340	345	350	
Gly	Leu	Cys	Asn	Gly	Cys	His	Pro	Asp	Phe	Leu	Lys	Ala	Trp	Gly	Gly	355	360	365	
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ata ttc cgt agc cga aga gtt ctt ctc ggt gat ggt act gaa aga gat 144
Ile Phe Arg Ser Arg Arg Val Leu Leu Gly Asp Gly Thr Glu Arg Asp
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gct ggc att gta gtt gat tcc tcc gga aga ata aaa agt ata att tca 192
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gac tac ggt caa ttt tca ata tgg cca ggt gtg ata gac tct cat gtg 288
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cac gtc aac gaa cca gga aga gaa tcc tgg gaa gga tac acc aca gct 336
His Val Asn Glu Pro Gly Arg Glu Ser Trp Glu Gly Tyr Thr Thr Ala
100 105 110

act aaa gca gca gct tgg ggc ggg att acc aca ata gta gac atg cct 384
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cag aaa gca aat tcc gta ctt ctg tac cat gcc gaa tta ccc gct cct	672
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Asp Tyr Gly Gln Phe Ser Ile Trp Pro Gly Val Ile Asp Ser His Val
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His Val Asn Glu Pro Gly Arg Glu Ser Trp Glu Gly Tyr Thr Thr Ala
 100 105 110

Thr Lys Ala Ala Ala Trp Gly Gly Ile Thr Thr Ile Val Asp Met Pro
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 Val Gly Arg Ser Arg Ala Arg Thr Thr Phe Gly Asn Glu Glu Ile Lys
 35 40 45

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 Cys Thr Asn Lys Gln Leu Gly Thr Phe Cys His Asp Cys Ser Thr Leu
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aag ttg tgc gct gga caa gaa acc cca att aca aca atc aat tgc aga 242

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Asp Gly Lys Gly Gln Val Phe Glu Cys Pro Pro Asn Tyr Val Tyr Asp																	
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His Ser Lys Asn Met Cys Lys Lys Lys Ser Ser Glu Ala Asp Cys Thr																	
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Pro Ser Ile Tyr Ala Trp Cys Asn Asp Lys Leu Gln Pro Ile Val Leu																	
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aaa tgt gaa gac gac gtc aac gaa tgg ttt gac cca aaa tct ttc tcg 626																	
Lys Cys Glu Asp Asp Val Asn Glu Trp Phe Asp Pro Lys Ser Phe Ser																	
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tgc aga act gca tgc aaa agt gaa aac gtt ttt tcc gat cga aga gat 674																	
Cys Arg Thr Ala Cys Lys Ser Glu Asn Val Phe Ser Asp Arg Arg Asp																	
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tgt aaa aaa tat tat caa tgt ttc ttg gtt aac aac aaa tgg caa ata 722																	
Cys Lys Lys Tyr Tyr Gln Cys Phe Leu Val Asn Asn Lys Trp Gln Ile																	
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aaa cat tat gat tgt cca aat ggc ttg cac ttt gat aaa acg gag ttg 770																	
Lys His Tyr Asp Cys Pro Asn Gly Leu His Phe Asp Lys Thr Glu Leu																	
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cga tgc ata ccc acg cca ccc ggc gaa gaa tgc aaa agt gag att gct 818																	

Arg Cys Ile Pro Thr Pro Pro Gly Glu Glu Cys Lys Ser Glu Ile Ala
260 265 270

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Lys
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<211> 272
<212> PRT
<213> Ctenocephalides felis

<400> 8
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35 40 45
Thr Asn Lys Gln Leu Gly Thr Phe Cys His Asp Cys Ser Thr Leu Lys
50 55 60
Leu Cys Ala Gly Gln Glu Thr Pro Ile Thr Thr Ile Asn Cys Arg Asp
65 70 75 80
Ser Asn Ser Asp Ala Pro Phe Cys Val Asp Asp Met Cys Ser Ser Lys
85 90 95
Pro Gly Glu Asn Cys Lys Thr Ala Glu Thr Thr Cys Ala Val Val Gly
100 105 110
Tyr Gln Pro Asp Pro Lys Asp Cys Thr Arg Tyr Leu Phe Cys Lys Asp
115 120 125
Gly Lys Gly Gln Val Phe Glu Cys Pro Pro Asn Tyr Val Tyr Asp His

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Cys Glu Asp Asp Val Asn Glu Trp Phe Asp Pro Lys Ser Phe Ser Cys		
195	200	205
Arg Thr Ala Cys Lys Ser Glu Asn Val Phe Ser Asp Arg Arg Asp Cys		
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Lys Lys Tyr Tyr Gln Cys Phe Leu Val Asn Asn Lys Trp Gln Ile Lys		
225	230	235 240
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 <213> Ctenocephalides felis

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 cttcacattt cagtacgatc ggttgcaatt tgtcattgca ccaagcataa attgatgggt 600
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 <212> DNA
 <213> Ctenocephalides felis

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 <222> (1)..(816)

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 Val Ala Ala Asp Arg Asn Ser Pro Thr Tyr Val Arg Gly Phe Pro Val
 20 25 30
 gga aga tcc aga gca cga aca aca ttt ggc aat gaa gaa ata aag tgt 144
 Gly Arg Ser Arg Ala Arg Thr Thr Phe Gly Asn Glu Glu Ile Lys Cys
 35 40 45
 act aat aag cag ttg gga aca ttt tgt cac gat tgt tct act ttg aag 192
 Thr Asn Lys Gln Leu Gly Thr Phe Cys His Asp Cys Ser Thr Leu Lys
 50 55 60
 ttg tgc gct gga caa gaa acc cca att aca aca atc aat tgc aga gac 240
 Leu Cys Ala Gly Gln Glu Thr Pro Ile Thr Thr Ile Asn Cys Arg Asp
 65 70 75 80
 tca aat tcc gat gct cca ttt tgt gta gat gat atg tgc tca tca aaa 288
 Ser Asn Ser Asp Ala Pro Phe Cys Val Asp Asp Met Cys Ser Ser Lys
 85 90 95
 cct ggg gaa aac tgt aag acg gca gaa act aca tgc gcc gtt gta gga 336
 Pro Gly Glu Asn Cys Lys Thr Ala Glu Thr Thr Cys Ala Val Val Gly
 100 105 110
 tat cag cca gat ccg aaa gac tgc aca aga tac tta ttc tgc aaa gat 384
 Tyr Gln Pro Asp Pro Lys Asp Cys Thr Arg Tyr Leu Phe Cys Lys Asp
 115 120 125

ggt aaa ggt cag gtt ttc gaa tgc cca cct aac tat gta tat gat cat 432
Gly Lys Gly Gln Val Phe Glu Cys Pro Pro Asn Tyr Val Tyr Asp His
130 135 140

tct aaa aat atg tgt aaa aag aaa tcg tca gaa gct gat tgc acc gtc 480
Ser Lys Asn Met Cys Lys Lys Lys Ser Ser Glu Ala Asp Cys Thr Val
145 150 155 160

atg aaa tgc aca aat ccc aat tct ttt ata acc tat gca ccg gac cca 528
Met Lys Cys Thr Asn Pro Asn Ser Phe Ile Thr Tyr Ala Pro Asp Pro
165 170 175

tca att tat gct tgg tgc aat gac aaa ttg caa ccg atc gta ctg aaa 576
Ser Ile Tyr Ala Trp Cys Asn Asp Lys Leu Gln Pro Ile Val Leu Lys
180 185 190

tgt gaa gac gac gtc aac gaa tgg ttt gac cca aaa tct ttc tcg tgc 624
Cys Glu Asp Asp Val Asn Glu Trp Phe Asp Pro Lys Ser Phe Ser Cys
195 200 205

aga act gca tgc aaa agt gaa aac gtt ttt tcc gat cga aga gat tgt 672
Arg Thr Ala Cys Lys Ser Glu Asn Val Phe Ser Asp Arg Arg Asp Cys
210 215 220

aaa aaa tat tat caa tgt ttc ttg gtt aac aac aaa tgg caa ata aaa 720
Lys Lys Tyr Tyr Gln Cys Phe Leu Val Asn Asn Lys Trp Gln Ile Lys
225 230 235 240

cat tat gat tgt cca aat ggc ttg cac ttt gat aaa acg gag ttg cga 768
His Tyr Asp Cys Pro Asn Gly Leu His Phe Asp Lys Thr Glu Leu Arg
245 250 255

tgc ata ccc acg cca ccc ggc gaa gaa tgc aaa agt gag att gct aag 816
Cys Ile Pro Thr Pro Pro Gly Glu Glu Cys Lys Ser Glu Ile Ala Lys
260 265 270

<210> 11

<211> 272

<212> PRT

<213> Ctenocephalides felis

<400> 11

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0991936-112101

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Leu	Cys	Ala	Gly	Gln	Glu	Thr	Pro	Ile	Thr	Thr	Ile	Asn	Cys	Arg	Asp	
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Pro	Gly	Glu	Asn	Cys	Lys	Thr	Ala	Glu	Thr	Thr	Cys	Ala	Val	Val	Gly	
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Cys	Glu	Asp	Asp	Val	Asn	Glu	Trp	Phe	Asp	Pro	Lys	Ser	Phe	Ser	Cys	
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Arg	Thr	Ala	Cys	Lys	Ser	Glu	Asn	Val	Phe	Ser	Asp	Arg	Arg	Asp	Cys	
210					215					220						
Lys	Lys	Tyr	Tyr	Gln	Cys	Phe	Leu	Val	Asn	Asn	Lys	Trp	Gln	Ile	Lys	
225					230					235					240	
His	Tyr	Asp	Cys	Pro	Asn	Gly	Leu	His	Phe	Asp	Lys	Thr	Glu	Leu	Arg	
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 <212> DNA
 <213> Ctenocephalides felis

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 caagaaacat tgataatatt ttttacaatc tcttcgatcg gaaaaaacgt tttcactttt 180
 gcatgcagtt ctgcacgaga aagattttgg gtcaaaccat tcgttgacgt cgtcttcaca 240
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 ctgaccttta ccacttttgc agaataagta tcttgtgcag tctttcggat ctggctgata 480
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 catatcatct acacaaaatg gagcatcgga atttgagtct ctgcaattga ttgttgtaat 600
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 ctgcttatta gtacacttta tttcttcatt gccaaatgtt gttcgtgctc tggatcttcc 720
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 <212> DNA
 <213> Ctenocephalides felis

<220>
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 <222> (294)..(1271)

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 ctgtttataa ttcataatat aaccgcatct tttattttcta attttatctt ttagtgaata 240
 aattttattg ttgttgaata aattaataat tgtgtacggt caatttggtc gtg atg 296
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 Glu Lys Ile Val Gly Arg Asp Gly Thr Glu Val Ile Thr Tyr Glu Phe
 5 10 15

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Pro Tyr Met Arg Arg Ala Asp Lys Arg Thr Asn Trp Glu Lys Phe Arg	
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Gln Gly Cys Tyr Asn Pro Asp Glu Gly Ser Phe Leu Gly Arg Gln Pro	
35 40 45	
tca gca tgg gct cgc gta tcg cta ttt tac ttg gta ttc tac aca gtt	488
Ser Ala Trp Ala Arg Val Ser Leu Phe Tyr Leu Val Phe Tyr Thr Val	
50 55 60 65	
ttg gca tcc cta ttc aca ata tgc atg tac aca atg cta tct acg ata	536
Leu Ala Ser Leu Phe Thr Ile Cys Met Tyr Thr Met Leu Ser Thr Ile	
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Asp Lys Glu Tyr Pro Lys Trp Gln Leu Glu Asp Ser Ile Ile Gly Thr	
85 90 95	
aat cct gga ctg gga ttt agg cca ata gca gat aac aca gaa gag gga	632
Asn Pro Gly Leu Gly Phe Arg Pro Ile Ala Asp Asn Thr Glu Glu Gly	
100 105 110	
tct cta ata tgg ttc gac gcc aaa aat gaa act gaa gtt gcg aaa tgg	680
Ser Leu Ile Trp Phe Asp Ala Lys Asn Glu Thr Glu Val Ala Lys Trp	
115 120 125	
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Thr Thr Ile Ile Asp Glu Phe Leu Ala Pro Tyr Lys Asn Arg Ser Gln	
130 135 140 145	
ttg cca agc cac ggt gaa aat caa atg ttc tgc gac tac gaa acg ggg	776
Leu Pro Ser His Gly Glu Asn Gln Met Phe Cys Asp Tyr Glu Thr Gly	
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Pro Asn Thr Ala Asn Arg Val Cys Ala Val Ala Val Glu Lys Trp Gly	
165 170 175	
tca tgc aca tca cag gct aac tac ggc ttt gga caa tcc gca cct tgt	872
Ser Cys Thr Ser Gln Ala Asn Tyr Gly Phe Gly Gln Ser Ala Pro Cys	
180 185 190	
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Val Phe Leu Lys Leu Asn Arg Ile Tyr Asn Trp Val Pro Asp Tyr Tyr	
195 200 205	

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His Ile Gln Ser Leu Lys Pro Asp Glu Arg Lys Gln Ile Trp Val Ser	
230 235 240	
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Cys Gln Gly Glu Asn Pro Val Asp Arg Glu Asn Leu Gly Pro Val Glu	
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Met Tyr Pro Ser Met Gly Phe Ala Gly Tyr Tyr Tyr Pro Phe Arg Asn	
260 265 270	
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Gln Arg Asp Tyr Leu Ser Pro Leu Val Ala Val Gln Phe Lys Arg Pro	
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Thr Val Gly Arg Leu Ile Asn Val Glu Cys Arg Ala Trp Ala Arg Asn	
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Ile Ile Tyr Arg Gly Gly Asn Lys Asp Arg Gln Gly Ser Val His Phe	
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Glu Leu Met Ile Asp	
325	
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 <213> Ctenocephalides felis

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 35 40 45
 Pro Ser Ala Trp Ala Arg Val Ser Leu Phe Tyr Leu Val Phe Tyr Thr
 50 55 60
 Val Leu Ala Ser Leu Phe Thr Ile Cys Met Tyr Thr Met Leu Ser Thr
 65 70 75 80
 Ile Asp Lys Glu Tyr Pro Lys Trp Gln Leu Glu Asp Ser Ile Ile Gly
 85 90 95
 Thr Asn Pro Gly Leu Gly Phe Arg Pro Ile Ala Asp Asn Thr Glu Glu
 100 105 110
 Gly Ser Leu Ile Trp Phe Asp Ala Lys Asn Glu Thr Glu Val Ala Lys
 115 120 125
 Trp Thr Thr Ile Ile Asp Glu Phe Leu Ala Pro Tyr Lys Asn Arg Ser
 130 135 140
 Gln Leu Pro Ser His Gly Glu Asn Gln Met Phe Cys Asp Tyr Glu Thr
 145 150 155 160
 Gly Pro Asn Thr Ala Asn Arg Val Cys Ala Val Ala Val Glu Lys Trp
 165 170 175
 Gly Ser Cys Thr Ser Gln Ala Asn Tyr Gly Phe Gly Gln Ser Ala Pro
 180 185 190
 Cys Val Phe Leu Lys Leu Asn Arg Ile Tyr Asn Trp Val Pro Asp Tyr
 195 200 205
 Tyr Asp Asp Val Ala Thr Leu Pro Glu Asp Met Pro Met Glu Leu Lys
 210 215 220

Asp His Ile Gln Ser Leu Lys Pro Asp Glu Arg Lys Gln Ile Trp Val
225 230 235 240

Ser Cys Gln Gly Glu Asn Pro Val Asp Arg Glu Asn Leu Gly Pro Val
245 250 255

Glu Met Tyr Pro Ser Met Gly Phe Ala Gly Tyr Tyr Tyr Pro Phe Arg
260 265 270

Asn Gln Arg Asp Tyr Leu Ser Pro Leu Val Ala Val Gln Phe Lys Arg
275 280 285

Pro Thr Val Gly Arg Leu Ile Asn Val Glu Cys Arg Ala Trp Ala Arg
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<210> 15

<211> 1714

<212> DNA

<213> Ctenocephalides felis

<400> 15

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<210> 16
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 <222> (1)..(978)

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Phe Pro Tyr Met Arg Arg Ala Asp Lys Arg Thr Asn Trp Glu Lys Phe	
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cgg cag gga tgc tac aat ccg gac gag ggc agt ttt ttg ggc agg caa	144
Arg Gln Gly Cys Tyr Asn Pro Asp Glu Gly Ser Phe Leu Gly Arg Gln	
35 40 45	
cca tca gca tgg gct cgc gta tcg cta ttt tac ttg gta ttc tac aca	192
Pro Ser Ala Trp Ala Arg Val Ser Leu Phe Tyr Leu Val Phe Tyr Thr	
50 55 60	
gtt ttg gca tcc cta ttc aca ata tgc atg tac aca atg cta tct acg	240
Val Leu Ala Ser Leu Phe Thr Ile Cys Met Tyr Thr Met Leu Ser Thr	
65 70 75 80	
ata gac aag gaa tac cca aaa tgg cag ctt gag gat tca ata ata gga	288
Ile Asp Lys Glu Tyr Pro Lys Trp Gln Leu Glu Asp Ser Ile Ile Gly	
85 90 95	
act aat cct gga ctg gga ttt agg cca ata gca gat aac aca gaa gag	336
Thr Asn Pro Gly Leu Gly Phe Arg Pro Ile Ala Asp Asn Thr Glu Glu	

100	105	110	
gga tct cta ata tgg ttc gac gcc aaa aat gaa act gaa gtt gcg aaa			384
Gly Ser Leu Ile Trp Phe Asp Ala Lys Asn Glu Thr Glu Val Ala Lys			
115	120	125	
tgg aca aca ata att gac gaa ttt tta gct cct tac aaa aat cgg tct			432
Trp Thr Thr Ile Ile Asp Glu Phe Leu Ala Pro Tyr Lys Asn Arg Ser			
130	135	140	
caa ttg cca agc cac ggt gaa aat caa atg ttc tgc gac tac gaa acg			480
Gln Leu Pro Ser His Gly Glu Asn Gln Met Phe Cys Asp Tyr Glu Thr			
145	150	155	160
ggg ccc aac act gca aat cgt gtt tgt gcc gta gcc gtc gag aag tgg			528
Gly Pro Asn Thr Ala Asn Arg Val Cys Ala Val Ala Val Glu Lys Trp			
165	170	175	
ggc tca tgc aca tca cag gct aac tac ggc ttt gga caa tcc gca cct			576
Gly Ser Cys Thr Ser Gln Ala Asn Tyr Gly Phe Gly Gln Ser Ala Pro			
180	185	190	
tgt gtc ttt ctt aag ctt aac agg ata tat aat tgg gta cca gat tat			624
Cys Val Phe Leu Lys Leu Asn Arg Ile Tyr Asn Trp Val Pro Asp Tyr			
195	200	205	
tat gat gat gtg gcg acg ctg cct gaa gat atg cct atg gaa ttg aag			672
Tyr Asp Asp Val Ala Thr Leu Pro Glu Asp Met Pro Met Glu Leu Lys			
210	215	220	
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Asp His Ile Gln Ser Leu Lys Pro Asp Glu Arg Lys Gln Ile Trp Val			
225	230	235	240
tcg tgt caa gga gaa aat cca gtt gat cga gaa aat ttg ggc cca gtt			768
Ser Cys Gln Gly Glu Asn Pro Val Asp Arg Glu Asn Leu Gly Pro Val			
245	250	255	
gaa atg tat cca agc atg gga ttt gct gga tat tat tat cca ttc aga			816
Glu Met Tyr Pro Ser Met Gly Phe Ala Gly Tyr Tyr Tyr Pro Phe Arg			
260	265	270	
aac caa cga gat tat ctt agt cca tta gtt gct gtt caa ttc aaa aga			864
Asn Gln Arg Asp Tyr Leu Ser Pro Leu Val Ala Val Gln Phe Lys Arg			
275	280	285	
cct aca gtg gga cgt ttg atc aac gtg gaa tgt cgt gcc tgg gcc agg			912
Pro Thr Val Gly Arg Leu Ile Asn Val Glu Cys Arg Ala Trp Ala Arg			

165	170	175
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Cys Val Phe Leu Lys Leu Asn Arg Ile Tyr Asn Trp Val Pro Asp Tyr		
195	200	205
Tyr Asp Asp Val Ala Thr Leu Pro Glu Asp Met Pro Met Glu Leu Lys		
210	215	220
Asp His Ile Gln Ser Leu Lys Pro Asp Glu Arg Lys Gln Ile Trp Val		
225	230	235
Ser Cys Gln Gly Glu Asn Pro Val Asp Arg Glu Asn Leu Gly Pro Val		
245	250	255
Glu Met Tyr Pro Ser Met Gly Phe Ala Gly Tyr Tyr Tyr Pro Phe Arg		
260	265	270
Asn Gln Arg Asp Tyr Leu Ser Pro Leu Val Ala Val Gln Phe Lys Arg		
275	280	285
Pro Thr Val Gly Arg Leu Ile Asn Val Glu Cys Arg Ala Trp Ala Arg		
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Asn Ile Ile Tyr Arg Gly Gly Asn Lys Asp Arg Gln Gly Ser Val His		
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Phe Glu Leu Met Ile Asp		
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<210> 18
 <211> 978
 <212> DNA
 <213> Ctenocephalides felis

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 gtgatccttc aattccatag gcatatcttc aggcagcgtc gccacatcat cataataatc 360
 tggtacccaa ttatatatcc tgtaaagctt aagaaagaca caaggtgcgg attgtccaaa 420
 gccgtagtta gcctgtgatg tgcattgagcc ccacttctcg acggctacgg cacaacacg 480

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aacttcagtt tcatttttgg cgtcgaacca tattagagat ccctcttctg tgttatctgc 660
tattggccta aatcccagtc caggattagt tcctattatt gaatcctcaa gctgccattt 720
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<210> 19

<211> 2240

<212> DNA

<213> Ctenocephalides felis

<220>

<221> CDS

<222> (1)..(1707)

<400> 19

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acc agt att tca gaa gaa tct acc aca aaa ttg gta aaa aca acc act 96
Thr Ser Ile Ser Glu Glu Ser Thr Thr Lys Leu Val Lys Thr Thr Thr
             20             25             30

gaa gac aac cac ctc ggt gta aag agc ctg aat gaa cct ggt gat gaa 144
Glu Asp Asn His Leu Gly Val Lys Ser Leu Asn Glu Pro Gly Asp Glu
             35             40             45

caa gaa tta aaa aaa cca tca tca cat ggt aag gag cat att tct tta 192
Gln Glu Leu Lys Lys Pro Ser Ser His Gly Lys Glu His Ile Ser Leu
             50             55             60

cca gtg gct tca cca gta cca cca gta tcg cat atc ttc cag gct aca 240
Pro Val Ala Ser Pro Val Pro Pro Val Ser His Ile Phe Gln Ala Thr
             65             70             75             80

cca gga gac ctt tgt cca gcc ttc gac gat gca gat cgc ttc acc cag 288
Pro Gly Asp Leu Cys Pro Ala Phe Asp Asp Ala Asp Arg Phe Thr Gln
             85             90             95

aca gaa ctt ttg tcc agg ctg aca aac gat tgc agg tac gat aag ctg 336
Thr Glu Leu Leu Ser Arg Leu Thr Asn Asp Cys Arg Tyr Asp Lys Leu
             100            105            110

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gag cgc cct ttg ggg cct cac aat ggt gca ggg ccg ctc ccg gtg gcc	384
Glu Arg Pro Leu Gly Pro His Asn Gly Ala Gly Pro Leu Pro Val Ala	
115 120 125	
gcc aga att tac gtg tat ttt ata caa aat acg gac gcg cac gaa ttg	432
Ala Arg Ile Tyr Val Tyr Phe Ile Gln Asn Thr Asp Ala His Glu Leu	
130 135 140	
tca ttt tcc gtg acc gtc ctc ctc caa ttt cgt tac cca gga cgc cag	480
Ser Phe Ser Val Thr Val Leu Leu Gln Phe Arg Tyr Pro Gly Arg Gln	
145 150 155 160	
att ggc cta caa aaa agt ggc acc cac cca gga cgg tca tca tgg gcg	528
Ile Gly Leu Gln Lys Ser Gly Thr His Pro Gly Arg Ser Ser Trp Ala	
165 170 175	
aat cgc agc tca ggg aca aaa tct ggg tac cca cat gta ttc gtt gcc	576
Asn Arg Ser Ser Gly Thr Lys Ser Gly Tyr Pro His Val Phe Val Ala	
180 185 190	
aac gag aga tct tcc cag gtt atg ggc aca gat gcc caa tct aag gac	624
Asn Glu Arg Ser Ser Gln Val Met Gly Thr Asp Ala Gln Ser Lys Asp	
195 200 205	
atg ttg gtg tca gta gct cct gat ggt aca gtc gtc ttt tcg gtc agg	672
Met Leu Val Ser Val Ala Pro Asp Gly Thr Val Val Phe Ser Val Arg	
210 215 220	
atg aag gca act ttg tac tgt tgg atg aat tta agg aaa ttt cct ttt	720
Met Lys Ala Thr Leu Tyr Cys Trp Met Asn Leu Arg Lys Phe Pro Phe	
225 230 235 240	
gat gaa caa cag tgt cag atg atg ttg gaa agt tgg aag tac aat aca	768
Asp Glu Gln Gln Cys Gln Met Met Leu Glu Ser Trp Lys Tyr Asn Thr	
245 250 255	
agt gaa ctc cta ttg act tgg gaa cca act gca cca gta act tta gca	816
Ser Glu Leu Leu Leu Thr Trp Glu Pro Thr Ala Pro Val Thr Leu Ala	
260 265 270	
cca gaa cta cat ttg acc gaa tat gtc ctt act gac atg tgg gta aat	864
Pro Glu Leu His Leu Thr Glu Tyr Val Leu Thr Asp Met Trp Val Asn	
275 280 285	
gaa aca gtt gtc aag gct gat ttg gat gac ctg aga cac gga gca ttt	912
Glu Thr Val Val Lys Ala Asp Leu Asp Asp Leu Arg His Gly Ala Phe	
290 295 300	

ggt ggg aca tac agt gcc tta agt ttc acg att caa ata agt cgt gaa	960
Gly Gly Thr Tyr Ser Ala Leu Ser Phe Thr Ile Gln Ile Ser Arg Glu	
305 310 315 320	
atg ggt tac tat tta atg gat tac ttt ttg cca tca gta atg atc gtg	1008
Met Gly Tyr Tyr Leu Met Asp Tyr Phe Leu Pro Ser Val Met Ile Val	
325 330 335	
tcg tgt tcc tgg gta agt ttt tgg ctg gca gca gac caa tca gca ccc	1056
Ser Cys Ser Trp Val Ser Phe Trp Leu Ala Ala Asp Gln Ser Ala Pro	
340 345 350	
aga gtc acc tta ggt aca agc acc atg tta tca ttt atc act tta gca	1104
Arg Val Thr Leu Gly Thr Ser Thr Met Leu Ser Phe Ile Thr Leu Ala	
355 360 365	
agt gcc caa gga aaa act tta ccc aaa gta tcg tac atc aaa gct tca	1152
Ser Ala Gln Gly Lys Thr Leu Pro Lys Val Ser Tyr Ile Lys Ala Ser	
370 375 380	
gaa atc tgg ttt tta ggt tgc acc ggg ttt att ttt ggg agt tta gtg	1200
Glu Ile Trp Phe Leu Gly Cys Thr Gly Phe Ile Phe Gly Ser Leu Val	
385 390 395 400	
gaa ttc gcg ttt gtc aac aca att tgg aga cga agg aaa aat gtg gaa	1248
Glu Phe Ala Phe Val Asn Thr Ile Trp Arg Arg Arg Lys Asn Val Glu	
405 410 415	
ttg aaa aaa gtc aac agc aag tat att ttg aag tca act ttg acg ccg	1296
Leu Lys Lys Val Asn Ser Lys Tyr Ile Leu Lys Ser Thr Leu Thr Pro	
420 425 430	
agg ttg gcc cgg aag gag ttt cat gct tcg ttt aat tcg aat cct gga	1344
Arg Leu Ala Arg Lys Glu Phe His Ala Ser Phe Asn Ser Asn Pro Gly	
435 440 445	
ggt ggt aat aag gat gat cag gat ttg gga aga ggg att agg gtc ttt	1392
Gly Gly Asn Lys Asp Asp Gln Asp Leu Gly Arg Gly Ile Arg Val Phe	
450 455 460	
ccg ccg cct ttg gtc aag gct agg tct tgt tcc agt ctg gat agg agt	1440
Pro Pro Pro Leu Val Lys Ala Arg Ser Cys Ser Ser Leu Asp Arg Ser	
465 470 475 480	
aat gga tcc ggg aat ttt ttg agc gtc cat gga aat gat cac aaa gtt	1488
Asn Gly Ser Gly Asn Phe Leu Ser Val His Gly Asn Asp His Lys Val	
485 490 495	

cca aca ata aca gca caa tgt gca gac gat gcc gca agt gac cag att 1536
Pro Thr Ile Thr Ala Gln Cys Ala Asp Asp Ala Ala Ser Asp Gln Ile
500 505 510

tca gtt tgt gtc gat ggg gaa aac gaa gaa cct gca caa att gtt cac 1584
Ser Val Cys Val Asp Gly Glu Asn Glu Glu Pro Ala Gln Ile Val His
515 520 525

cac acc tgg acg acg atg aca cct caa gaa att tcc atg tgg att gac 1632
His Thr Trp Thr Thr Met Thr Pro Gln Glu Ile Ser Met Trp Ile Asp
530 535 540

aaa agg tcc aga att tgt ttc ccg ata gct ttt gct ata ttt aac ttt 1680
Lys Arg Ser Arg Ile Cys Phe Pro Ile Ala Phe Ala Ile Phe Asn Phe
545 550 555 560

ttt tat tgg ata ttt gtt tat tat tta taaacacact taatatactt 1727
Phe Tyr Trp Ile Phe Val Tyr Tyr Leu
565

atagtttttaa taattaataa atttataaaa taattaaaaa taaatatatg taaaatttaa 1787

aggaaacgtg aatagaatca aaagagattc ttattggatt attcattat taataggatt 1847

cttactagac aatattaatg attttatatt atatatcact tataactttt gaacggtttg 1907

ttaaaaatga atacaatatt tgacaaattt atataaaatt aaacaattta taatattgtc 1967

gaacatctta ccaccctaca gcgactcagt atactcgaaa atcgctattg aaatatctta 2027

cacaatttag tcattcctat ttcacatata atagttaata attaaaattg aaattttaaa 2087

ttaaaaaata atgatactgg aaatttttaatt tttaattatt aattattata tgaataatta 2147

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ctggtctgaa aaaaaaaaaa aaaaaaaaaa aaa 2240

<210> 20

<211> 569

<212> PRT

<213> Ctenocephalides felis

<400> 20

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Glu	Asp	Asn	His	Leu	Gly	Val	Lys	Ser	Leu	Asn	Glu	Pro	Gly	Asp	Glu	35	40	45
Gln	Glu	Leu	Lys	Lys	Pro	Ser	Ser	His	Gly	Lys	Glu	His	Ile	Ser	Leu	50	55	60
Pro	Val	Ala	Ser	Pro	Val	Pro	Pro	Val	Ser	His	Ile	Phe	Gln	Ala	Thr	65	70	75
Pro	Gly	Asp	Leu	Cys	Pro	Ala	Phe	Asp	Asp	Ala	Asp	Arg	Phe	Thr	Gln	85	90	95
Thr	Glu	Leu	Leu	Ser	Arg	Leu	Thr	Asn	Asp	Cys	Arg	Tyr	Asp	Lys	Leu	100	105	110
Glu	Arg	Pro	Leu	Gly	Pro	His	Asn	Gly	Ala	Gly	Pro	Leu	Pro	Val	Ala	115	120	125
Ala	Arg	Ile	Tyr	Val	Tyr	Phe	Ile	Gln	Asn	Thr	Asp	Ala	His	Glu	Leu	130	135	140
Ser	Phe	Ser	Val	Thr	Val	Leu	Leu	Gln	Phe	Arg	Tyr	Pro	Gly	Arg	Gln	145	150	155
Ile	Gly	Leu	Gln	Lys	Ser	Gly	Thr	His	Pro	Gly	Arg	Ser	Ser	Trp	Ala	165	170	175
Asn	Arg	Ser	Ser	Gly	Thr	Lys	Ser	Gly	Tyr	Pro	His	Val	Phe	Val	Ala	180	185	190
Asn	Glu	Arg	Ser	Ser	Gln	Val	Met	Gly	Thr	Asp	Ala	Gln	Ser	Lys	Asp	195	200	205
Met	Leu	Val	Ser	Val	Ala	Pro	Asp	Gly	Thr	Val	Val	Phe	Ser	Val	Arg	210	215	220
Met	Lys	Ala	Thr	Leu	Tyr	Cys	Trp	Met	Asn	Leu	Arg	Lys	Phe	Pro	Phe	225	230	235
Asp	Glu	Gln	Gln	Cys	Gln	Met	Met	Leu	Glu	Ser	Trp	Lys	Tyr	Asn	Thr	245	250	255
Ser	Glu	Leu	Leu	Leu	Thr	Trp	Glu	Pro	Thr	Ala	Pro	Val	Thr	Leu	Ala	260	265	270

Pro Glu Leu His Leu Thr Glu Tyr Val Leu Thr Asp Met Trp Val Asn
275 280 285

Glu Thr Val Val Lys Ala Asp Leu Asp Asp Leu Arg His Gly Ala Phe
290 295 300

Gly Gly Thr Tyr Ser Ala Leu Ser Phe Thr Ile Gln Ile Ser Arg Glu
305 310 315 320

Met Gly Tyr Tyr Leu Met Asp Tyr Phe Leu Pro Ser Val Met Ile Val
325 330 335

Ser Cys Ser Trp Val Ser Phe Trp Leu Ala Ala Asp Gln Ser Ala Pro
340 345 350

Arg Val Thr Leu Gly Thr Ser Thr Met Leu Ser Phe Ile Thr Leu Ala
355 360 365

Ser Ala Gln Gly Lys Thr Leu Pro Lys Val Ser Tyr Ile Lys Ala Ser
370 375 380

Glu Ile Trp Phe Leu Gly Cys Thr Gly Phe Ile Phe Gly Ser Leu Val
385 390 395 400

Glu Phe Ala Phe Val Asn Thr Ile Trp Arg Arg Arg Lys Asn Val Glu
405 410 415

Leu Lys Lys Val Asn Ser Lys Tyr Ile Leu Lys Ser Thr Leu Thr Pro
420 425 430

Arg Leu Ala Arg Lys Glu Phe His Ala Ser Phe Asn Ser Asn Pro Gly
435 440 445

Gly Gly Asn Lys Asp Asp Gln Asp Leu Gly Arg Gly Ile Arg Val Phe
450 455 460

Pro Pro Pro Leu Val Lys Ala Arg Ser Cys Ser Ser Leu Asp Arg Ser
465 470 475 480

Asn Gly Ser Gly Asn Phe Leu Ser Val His Gly Asn Asp His Lys Val
485 490 495

Pro Thr Ile Thr Ala Gln Cys Ala Asp Asp Ala Ala Ser Asp Gln Ile
500 505 510

Ser Val Cys Val Asp Gly Glu Asn Glu Glu Pro Ala Gln Ile Val His
515 520 525

His Thr Trp Thr Thr Met Thr Pro Gln Glu Ile Ser Met Trp Ile Asp
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Lys Arg Ser Arg Ile Cys Phe Pro Ile Ala Phe Ala Ile Phe Asn Phe
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Phe Tyr Trp Ile Phe Val Tyr Tyr Leu
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<211> 2240
<212> DNA
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gctggacaaa ggtctcctgg tgtagcctgg aagatatgcg atactggtgg tactggtgaa 2040
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<210> 22

<211> 1707

<212> DNA

<213> Ctenocephalides felis

<220>

<221> CDS

<222> (1)..(1707)

<400> 22

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acc agt att tca gaa gaa tct acc aca aaa ttg gta aaa aca acc act 96
Thr Ser Ile Ser Glu Glu Ser Thr Thr Lys Leu Val Lys Thr Thr Thr
20 25 30

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35 40 45

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caa gaa tta aaa aaa cca tca tca cat ggt aag gag cat att tct tta 192
Gln Glu Leu Lys Lys Pro Ser Ser His Gly Lys Glu His Ile Ser Leu
50 55 60

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Pro Val Ala Ser Pro Val Pro Pro Val Ser His Ile Phe Gln Ala Thr
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cca gga gac ctt tgt cca gcc ttc gac gat gca gat cgc ttc acc cag 288
Pro Gly Asp Leu Cys Pro Ala Phe Asp Asp Ala Asp Arg Phe Thr Gln
85 90 95

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aca gaa ctt ttg tcc agg ctg aca aac gat tgc agg tac gat aag ctg 336
Thr Glu Leu Leu Ser Arg Leu Thr Asn Asp Cys Arg Tyr Asp Lys Leu
100 105 110

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Glu Arg Pro Leu Gly Pro His Asn Gly Ala Gly Pro Leu Pro Val Ala	
115 120 125	
gcc aga att tac gtg tat ttt ata caa aat acg gac gcg cac gaa ttg	432
Ala Arg Ile Tyr Val Tyr Phe Ile Gln Asn Thr Asp Ala His Glu Leu	
130 135 140	
tca ttt tcc gtg acc gtc ctc ctc caa ttt cgt tac cca gga cgc cag	480
Ser Phe Ser Val Thr Val Leu Leu Gln Phe Arg Tyr Pro Gly Arg Gln	
145 150 155 160	
att ggc cta caa aaa agt ggc acc cac cca gga cgg tca tca tgg gcg	528
Ile Gly Leu Gln Lys Ser Gly Thr His Pro Gly Arg Ser Ser Trp Ala	
165 170 175	
aat cgc agc tca ggg aca aaa tct ggg tac cca cat gta ttc gtt gcc	576
Asn Arg Ser Ser Gly Thr Lys Ser Gly Tyr Pro His Val Phe Val Ala	
180 185 190	
aac gag aga tct tcc cag gtt atg ggc aca gat gcc caa tct aag gac	624
Asn Glu Arg Ser Ser Gln Val Met Gly Thr Asp Ala Gln Ser Lys Asp	
195 200 205	
atg ttg gtg tca gta gct cct gat ggt aca gtc gtc ttt tcg gtc agg	672
Met Leu Val Ser Val Ala Pro Asp Gly Thr Val Val Phe Ser Val Arg	
210 215 220	
atg aag gca act ttg tac tgt tgg atg aat tta agg aaa ttt cct ttt	720
Met Lys Ala Thr Leu Tyr Cys Trp Met Asn Leu Arg Lys Phe Pro Phe	
225 230 235 240	
gat gaa caa cag tgt cag atg atg ttg gaa agt tgg aag tac aat aca	768
Asp Glu Gln Gln Cys Gln Met Met Leu Glu Ser Trp Lys Tyr Asn Thr	
245 250 255	
agt gaa ctc cta ttg act tgg gaa cca act gca cca gta act tta gca	816
Ser Glu Leu Leu Leu Thr Trp Glu Pro Thr Ala Pro Val Thr Leu Ala	
260 265 270	
cca gaa cta cat ttg acc gaa tat gtc ctt act gac atg tgg gta aat	864
Pro Glu Leu His Leu Thr Glu Tyr Val Leu Thr Asp Met Trp Val Asn	
275 280 285	
gaa aca gtt gtc aag gct gat ttg gat gac ctg aga cac gga gca ttt	912
Glu Thr Val Val Lys Ala Asp Leu Asp Asp Leu Arg His Gly Ala Phe	
290 295 300	

ggt ggg aca tac agt gcc tta agt ttc acg att caa ata agt cgt gaa	960
Gly Gly Thr Tyr Ser Ala Leu Ser Phe Thr Ile Gln Ile Ser Arg Glu	
305 310 315 320	
atg ggt tac tat tta atg gat tac ttt ttg cca tca gta atg atc gtg	1008
Met Gly Tyr Tyr Leu Met Asp Tyr Phe Leu Pro Ser Val Met Ile Val	
325 330 335	
tcg tgt tcc tgg gta agt ttt tgg ctg gca gca gac caa tca gca ccc	1056
Ser Cys Ser Trp Val Ser Phe Trp Leu Ala Ala Asp Gln Ser Ala Pro	
340 345 350	
aga gtc acc tta ggt aca agc acc atg tta tca ttt atc act tta gca	1104
Arg Val Thr Leu Gly Thr Ser Thr Met Leu Ser Phe Ile Thr Leu Ala	
355 360 365	
agt gcc caa gga aaa act tta ccc aaa gta tcg tac atc aaa gct tca	1152
Ser Ala Gln Gly Lys Thr Leu Pro Lys Val Ser Tyr Ile Lys Ala Ser	
370 375 380	
gaa atc tgg ttt tta ggt tgc acc ggg ttt att ttt ggg agt tta gtg	1200
Glu Ile Trp Phe Leu Gly Cys Thr Gly Phe Ile Phe Gly Ser Leu Val	
385 390 395 400	
gaa ttc gcg ttt gtc aac aca att tgg aga cga agg aaa aat gtg gaa	1248
Glu Phe Ala Phe Val Asn Thr Ile Trp Arg Arg Arg Lys Asn Val Glu	
405 410 415	
ttg aaa aaa gtc aac agc aag tat att ttg aag tca act ttg acg ccg	1296
Leu Lys Lys Val Asn Ser Lys Tyr Ile Leu Lys Ser Thr Leu Thr Pro	
420 425 430	
agg ttg gcc cgg aag gag ttt cat gct tcg ttt aat tcg aat cct gga	1344
Arg Leu Ala Arg Lys Glu Phe His Ala Ser Phe Asn Ser Asn Pro Gly	
435 440 445	
ggt ggt aat aag gat gat cag gat ttg gga aga ggg att agg gtc ttt	1392
Gly Gly Asn Lys Asp Asp Gln Asp Leu Gly Arg Gly Ile Arg Val Phe	
450 455 460	
ccg ccg cct ttg gtc aag gct agg tct tgt tcc agt ctg gat agg agt	1440
Pro Pro Pro Leu Val Lys Ala Arg Ser Cys Ser Ser Leu Asp Arg Ser	
465 470 475 480	
aat gga tcc ggg aat ttt ttg agc gtc cat gga aat gat cac aaa gtt	1488
Asn Gly Ser Gly Asn Phe Leu Ser Val His Gly Asn Asp His Lys Val	
485 490 495	

cca aca ata aca gca caa tgt gca gac gat gcc gca agt gac cag att 1536
Pro Thr Ile Thr Ala Gln Cys Ala Asp Asp Ala Ala Ser Asp Gln Ile
500 505 510

tca gtt tgt gtc gat ggg gaa aac gaa gaa cct gca caa att gtt cac 1584
Ser Val Cys Val Asp Gly Glu Asn Glu Glu Pro Ala Gln Ile Val His
515 520 525

cac acc tgg acg acg atg aca cct caa gaa att tcc atg tgg att gac 1632
His Thr Trp Thr Thr Met Thr Pro Gln Glu Ile Ser Met Trp Ile Asp
530 535 540

aaa agg tcc aga att tgt ttc ccg ata gct ttt gct ata ttt aac ttt 1680
Lys Arg Ser Arg Ile Cys Phe Pro Ile Ala Phe Ala Ile Phe Asn Phe
545 550 555 560

ttt tat tgg ata ttt gtt tat tat tta 1707
Phe Tyr Trp Ile Phe Val Tyr Tyr Leu
565

<210> 23
<211> 569
<212> PRT
<213> Ctenocephalides felis

<400> 23
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Thr Ser Ile Ser Glu Glu Ser Thr Thr Lys Leu Val Lys Thr Thr Thr
20 25 30

Glu Asp Asn His Leu Gly Val Lys Ser Leu Asn Glu Pro Gly Asp Glu
35 40 45

Gln Glu Leu Lys Lys Pro Ser Ser His Gly Lys Glu His Ile Ser Leu
50 55 60

Pro Val Ala Ser Pro Val Pro Pro Val Ser His Ile Phe Gln Ala Thr
65 70 75 80

Pro Gly Asp Leu Cys Pro Ala Phe Asp Asp Ala Asp Arg Phe Thr Gln
85 90 95

Thr Glu Leu Leu Ser Arg Leu Thr Asn Asp Cys Arg Tyr Asp Lys Leu
100 105 110

Glu Arg Pro Leu Gly Pro His Asn Gly Ala Gly Pro Leu Pro Val Ala	115	120	125
Ala Arg Ile Tyr Val Tyr Phe Ile Gln Asn Thr Asp Ala His Glu Leu	130	135	140
Ser Phe Ser Val Thr Val Leu Leu Gln Phe Arg Tyr Pro Gly Arg Gln	145	150	155
Ile Gly Leu Gln Lys Ser Gly Thr His Pro Gly Arg Ser Ser Trp Ala	165	170	175
Asn Arg Ser Ser Gly Thr Lys Ser Gly Tyr Pro His Val Phe Val Ala	180	185	190
Asn Glu Arg Ser Ser Gln Val Met Gly Thr Asp Ala Gln Ser Lys Asp	195	200	205
Met Leu Val Ser Val Ala Pro Asp Gly Thr Val Val Phe Ser Val Arg	210	215	220
Met Lys Ala Thr Leu Tyr Cys Trp Met Asn Leu Arg Lys Phe Pro Phe	225	230	235
Asp Glu Gln Gln Cys Gln Met Met Leu Glu Ser Trp Lys Tyr Asn Thr	245	250	255
Ser Glu Leu Leu Leu Thr Trp Glu Pro Thr Ala Pro Val Thr Leu Ala	260	265	270
Pro Glu Leu His Leu Thr Glu Tyr Val Leu Thr Asp Met Trp Val Asn	275	280	285
Glu Thr Val Val Lys Ala Asp Leu Asp Asp Leu Arg His Gly Ala Phe	290	295	300
Gly Gly Thr Tyr Ser Ala Leu Ser Phe Thr Ile Gln Ile Ser Arg Glu	305	310	315
Met Gly Tyr Tyr Leu Met Asp Tyr Phe Leu Pro Ser Val Met Ile Val	325	330	335
Ser Cys Ser Trp Val Ser Phe Trp Leu Ala Ala Asp Gln Ser Ala Pro	340	345	350
Arg Val Thr Leu Gly Thr Ser Thr Met Leu Ser Phe Ile Thr Leu Ala	355	360	365

Ser Ala Gln Gly Lys Thr Leu Pro Lys Val Ser Tyr Ile Lys Ala Ser
370 375 380

Glu Ile Trp Phe Leu Gly Cys Thr Gly Phe Ile Phe Gly Ser Leu Val
385 390 395 400

Glu Phe Ala Phe Val Asn Thr Ile Trp Arg Arg Arg Lys Asn Val Glu
405 410 415

Leu Lys Lys Val Asn Ser Lys Tyr Ile Leu Lys Ser Thr Leu Thr Pro
420 425 430

Arg Leu Ala Arg Lys Glu Phe His Ala Ser Phe Asn Ser Asn Pro Gly
435 440 445

Gly Gly Asn Lys Asp Asp Gln Asp Leu Gly Arg Gly Ile Arg Val Phe
450 455 460

Pro Pro Pro Leu Val Lys Ala Arg Ser Cys Ser Ser Leu Asp Arg Ser
465 470 475 480

Asn Gly Ser Gly Asn Phe Leu Ser Val His Gly Asn Asp His Lys Val
485 490 495

Pro Thr Ile Thr Ala Gln Cys Ala Asp Asp Ala Ala Ser Asp Gln Ile
500 505 510

Ser Val Cys Val Asp Gly Glu Asn Glu Glu Pro Ala Gln Ile Val His
515 520 525

His Thr Trp Thr Thr Met Thr Pro Gln Glu Ile Ser Met Trp Ile Asp
530 535 540

Lys Arg Ser Arg Ile Cys Phe Pro Ile Ala Phe Ala Ile Phe Asn Phe
545 550 555 560

Phe Tyr Trp Ile Phe Val Tyr Tyr Leu
565

<210> 24

<211> 1707

<212> DNA

<213> Ctenocephalides felis

<400> 24

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gtgggtgaaca atttgtgcag gttcttcggt ttccccatcg acacaaactg aaatctgggtc 180
acttgcgga tcgtctgcac attgtgctgt tattgttga actttgtgat catttccatg 240
gacgctcaaa aaattcccgg atccattact cctatccaga ctggaacaag acctagcctt 300
gaccaaaggc ggcggaaaga ccctaattcc tcttcccaa tcctgatcat ccttattacc 360
acctccagga ttcgaattaa acgaagcatg aaactccttc cgggccaacc tcggcgtcaa 420
agttgacttc aaaatatact tgctgttgac ttttttcaat tccacatttt tccttcgtct 480
ccaaattgtg ttgacaaacg cgaattccac taaactccca aaaataaacc cgggtgaacc 540
taaaaaccag atttctgaag ctttgatgta cgatactttg ggtaaagtgt ttccttgggc 600
acttgctaaa gtgataaatg ataacatggt gcttgctacct aaggtgactc tgggtgctga 660
ttggtctgct gccagccaaa aacttaccga ggaacacgac acgatcatta ctgatggcaa 720
aaagtaatcc attaaatagt aacctatttc acgacttatt tgaatcgtga aacttaaggc 780
actgtatgtc ccaccaaagt ctccgtgtct cagggtcatcc aaatcagcct tgacaactgt 840
ttcatttacc cacatgtcag taaggacata ttcgggtcaaa tgtagttctg gtgctaaagt 900
tactgggtgca gttgggtccc aagtcaatag gagttcactt gtattgtact tccaactttc 960
caacatcatc tgacactgtt gttcatcaaa aggaaatttc cttaaattca tccaacagta 1020
caaagttgcc ttcattcctga ccgaaaagac gactgtacca tcaggagcta ctgacaccaa 1080
catgtcctta gattgggcat ctgtgcccat aacctgggaa gatctctcgt tggcaacgaa 1140
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tgggtgaagc actggttaaag aaatatgctc cttaccatgt gatgatggtt tttttaattc 1560
ttgttcatca ccaggttcat tcaggctctt tacaccgagg tgggtgtctt cagtggttgt 1620
ttttaccaat tttgtggtag attcttctga aatactggtt tgatgtccag gatttttttc 1680
aacggtcgtg gatgcgttta aaattgt 1707

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<210> 25

<211> 1429

<212> DNA

<213> Ctenocephalides felis

<220>

<221> CDS

<222> (18)..(1211)

<400> 25

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Met Ser Pro Ala Leu Leu Ala Val Ile Ala Val
1 5 10

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att ttg tgc att tta ttt aga att tta aat gta aat aca caa ccg gga 98
Ile Leu Cys Ile Leu Phe Arg Ile Leu Asn Val Asn Thr Gln Pro Gly
15 20 25

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acg cct aaa ata tgg tgc aaa gat gag acg ttt ctt gag gcc att tac	146
Thr Pro Lys Ile Trp Cys Lys Asp Glu Thr Phe Leu Glu Ala Ile Tyr	
30 35 40	
aaa att gct ccg ctt tta cga gag cct tat gtg cct cct aga ctc tgg	194
Lys Ile Ala Pro Leu Leu Arg Glu Pro Tyr Val Pro Pro Arg Leu Trp	
45 50 55	
gga ttc agc ggg cac gtg cag acg atc gtg cac agc ata gtg ggc cgc	242
Gly Phe Ser Gly His Val Gln Thr Ile Val His Ser Ile Val Gly Arg	
60 65 70 75	
gtc aag tgc cca ctg cca ctc gga gag agg gtg tac ctg tca ctg gct	290
Val Lys Cys Pro Leu Pro Leu Gly Glu Arg Val Tyr Leu Ser Leu Ala	
80 85 90	
gat ggg tcg acg ctc act tac gat cta tac aaa gct ctt aat ccg gat	338
Asp Gly Ser Thr Leu Thr Tyr Asp Leu Tyr Lys Ala Leu Asn Pro Asp	
95 100 105	
aaa cat gaa gat gag gta act ctg gca gtg tgc cct ggc ata agt aac	386
Lys His Glu Asp Glu Val Thr Leu Ala Val Cys Pro Gly Ile Ser Asn	
110 115 120	
tcc tcg gag tcg gtc tac att cgc aca ttt gtc cat tac gca caa tat	434
Ser Ser Glu Ser Val Tyr Ile Arg Thr Phe Val His Tyr Ala Gln Tyr	
125 130 135	
tac gga tac aga tgt gcc gta ctt aat cat att ggt gcc tta tct gga	482
Tyr Gly Tyr Arg Cys Ala Val Leu Asn His Ile Gly Ala Leu Ser Gly	
140 145 150 155	
gtg cct gtc act aac tct aga aat ttc agt tat ggt cat acc gat gat	530
Val Pro Val Thr Asn Ser Arg Asn Phe Ser Tyr Gly His Thr Asp Asp	
160 165 170	
tat aat gaa atg att cga cat ctg caa tca cag ttt cct cct tct aaa	578
Tyr Asn Glu Met Ile Arg His Leu Gln Ser Gln Phe Pro Pro Ser Lys	
175 180 185	
ata att tgt gtg ggc tac agt tta aga ggc aat atc atc acc aaa tat	626
Ile Ile Cys Val Gly Tyr Ser Leu Arg Gly Asn Ile Ile Thr Lys Tyr	
190 195 200	
ctt ggt gaa aag aca aaa att aaa aat ggt aat ata att gga gga att	674
Leu Gly Glu Lys Thr Lys Ile Lys Asn Gly Asn Ile Ile Gly Gly Ile	
205 210 215	

tca ata tgc caa gga tac aac gcc att gag ggt acg aaa tgg cta ctg	722
Ser Ile Cys Gln Gly Tyr Asn Ala Ile Glu Gly Thr Lys Trp Leu Leu	
220 225 230 235	
aat tgg caa aat ttc cgt cgt ttc tac ttg tat gtt tta aca gaa agt	770
Asn Trp Gln Asn Phe Arg Arg Phe Tyr Leu Tyr Val Leu Thr Glu Ser	
240 245 250	
gta aag aca ata att ttg aaa cac aga cat att ctc ctg tcc gat gaa	818
Val Lys Thr Ile Ile Leu Lys His Arg His Ile Leu Leu Ser Asp Glu	
255 260 265	
atg aaa tta aaa tgc caa ttg aat gag aga gat ata gca tcg gca gcc	866
Met Lys Leu Lys Cys Gln Leu Asn Glu Arg Asp Ile Ala Ser Ala Ala	
270 275 280	
act ttg ccg gaa ttg gat gac gcc tat acg aga aaa gtt cac aag ttt	914
Thr Leu Pro Glu Leu Asp Asp Ala Tyr Thr Arg Lys Val His Lys Phe	
285 290 295	
cca tct gta aac gct ttg tac aaa tgg agt tcc tgc ata aac tac atc	962
Pro Ser Val Asn Ala Leu Tyr Lys Trp Ser Ser Cys Ile Asn Tyr Ile	
300 305 310 315	
cag gac att gaa act cca atg gtg ttc ata aat gct aaa gat gat cct	1010
Gln Asp Ile Glu Thr Pro Met Val Phe Ile Asn Ala Lys Asp Asp Pro	
320 325 330	
cta ctc cat gat acg ctt cta gac cct ata aga aaa att gct ggt tct	1058
Leu Leu His Asp Thr Leu Leu Asp Pro Ile Arg Lys Ile Ala Gly Ser	
335 340 345	
tct aga aga atg atc tac gta gaa ctt tct cat gga ggt cat cca aga	1106
Ser Arg Arg Met Ile Tyr Val Glu Leu Ser His Gly Gly His Pro Arg	
350 355 360	
ttc ttt gaa agg ggt ctc ata tac ccc aat ccc gtt acc tgg ata gat	1154
Phe Phe Glu Arg Gly Leu Ile Tyr Pro Asn Pro Val Thr Trp Ile Asp	
365 370 375	
agg gca gtg ata agc ttg gtt ggn ggt ctc ctg ctt gca cat aat gaa	1202
Arg Ala Val Ile Ser Leu Val Xaa Gly Leu Leu Leu Ala His Asn Glu	
380 385 390 395	
aag agc tat taaaccaatt tagattttata attattattt ataaaaattt	1251
Lys Ser Tyr	
atgaaatatt tttttgttat aaattgtgga tttatttttt tatttgtgct gtcttttgca	1311

tcttgtgctc agttattcga tgttattgaa gttattttct aaatttatat atacgcggat 1371

gtgaagatca atatatgtca taaagttagg ggatttaggg gaaaaaaaaa aaaaaaaaa 1429

<210> 26

<211> 398

<212> PRT

<213> Ctenocephalides felis

<400> 26

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Cys Lys Asp Glu Thr Phe Leu Glu Ala Ile Tyr Lys Ile Ala Pro Leu
35 40 45

Leu Arg Glu Pro Tyr Val Pro Pro Arg Leu Trp Gly Phe Ser Gly His
50 55 60

Val Gln Thr Ile Val His Ser Ile Val Gly Arg Val Lys Cys Pro Leu
65 70 75 80

Pro Leu Gly Glu Arg Val Tyr Leu Ser Leu Ala Asp Gly Ser Thr Leu
85 90 95

Thr Tyr Asp Leu Tyr Lys Ala Leu Asn Pro Asp Lys His Glu Asp Glu
100 105 110

Val Thr Leu Ala Val Cys Pro Gly Ile Ser Asn Ser Ser Glu Ser Val
115 120 125

Tyr Ile Arg Thr Phe Val His Tyr Ala Gln Tyr Tyr Gly Tyr Arg Cys
130 135 140

Ala Val Leu Asn His Ile Gly Ala Leu Ser Gly Val Pro Val Thr Asn
145 150 155 160

Ser Arg Asn Phe Ser Tyr Gly His Thr Asp Asp Tyr Asn Glu Met Ile
165 170 175

Arg His Leu Gln Ser Gln Phe Pro Pro Ser Lys Ile Ile Cys Val Gly
180 185 190

Tyr Ser Leu Arg Gly Asn Ile Ile Thr Lys Tyr Leu Gly Glu Lys Thr
195 200 205

Lys Ile Lys Asn Gly Asn Ile Ile Gly Gly Ile Ser Ile Cys Gln Gly
210 215 220

Tyr Asn Ala Ile Glu Gly Thr Lys Trp Leu Leu Asn Trp Gln Asn Phe
225 230 235 240

Arg Arg Phe Tyr Leu Tyr Val Leu Thr Glu Ser Val Lys Thr Ile Ile
245 250 255

Leu Lys His Arg His Ile Leu Leu Ser Asp Glu Met Lys Leu Lys Cys
260 265 270

Gln Leu Asn Glu Arg Asp Ile Ala Ser Ala Ala Thr Leu Pro Glu Leu
275 280 285

Asp Asp Ala Tyr Thr Arg Lys Val His Lys Phe Pro Ser Val Asn Ala
290 295 300

Leu Tyr Lys Trp Ser Ser Cys Ile Asn Tyr Ile Gln Asp Ile Glu Thr
305 310 315 320

Pro Met Val Phe Ile Asn Ala Lys Asp Asp Pro Leu Leu His Asp Thr
325 330 335

Leu Leu Asp Pro Ile Arg Lys Ile Ala Gly Ser Ser Arg Arg Met Ile
340 345 350

Tyr Val Glu Leu Ser His Gly Gly His Pro Arg Phe Phe Glu Arg Gly
355 360 365

Leu Ile Tyr Pro Asn Pro Val Thr Trp Ile Asp Arg Ala Val Ile Ser
370 375 380

Leu Val Xaa Gly Leu Leu Leu Ala His Asn Glu Lys Ser Tyr
385 390 395

<210> 27

<211> 1429

<212> DNA

<213> Ctenocephalides felis

<400> 27

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caaaagacag cacaaataaaa aaaataaatc cacaatttat aacaaaaaaaa tatttcataa 180
atattttataa ataataatta taaatctaaa ttgggtttaat agctcttttc attatgtgca 240
agcaggagac cnccaaccaa gcttatcact gccctatcta tccaggtaac gggattgggg 300
tatatgagac ccctttcaaa gaatcttgga tgacctccat gagaaagttc tacgtagatc 360
attcttctag aagaaccagc aatttttctt atagggctta gaagcgtatc atggagtaga 420
ggatcatctt tagcatttat gaacaccatt ggagtttcaa tgtcctggat gtagtttatg 480
caggaactcc atttgtacaa agcgtttaca gatggaaact tgtgaacttt tctcgtatag 540
gcgtcatcca attccggcaa agtggctgcc gatgctatat ctctctcatt caattggcat 600
tttaatttca tttcatcgga caggagaata tgtctgtgtt tcaaaattat tgtctttaca 660
ctttctgtta aaacatacaa gtagaaacga cggaaatttt gccaatcag tagccatttc 720
gtaccctcaa tggcgttgta tccttggcat attgaaattc ctccaattat attaccattt 780
ttaatttttg tcttttcacc aagatatttg gtgatgatat tgccctctaa actgtagccc 840
acacaaatta ttttagaagg aggaaactgt gattgcagat gtcgaatcat ttcattataa 900
tcatcggtat gaccataact gaaatttcta gagttagtga caggcactcc agataaggca 960
ccaatatgat taagtacggc acatctgtat ccgtaatat gtgcgtaatg gacaaatgtg 1020
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tcttcatgtt tatccggatt aagagctttg tatagatcgt aagtgagcgt cgacccatca 1140
gccagtgaca ggtacaccct ctctccgagt ggcagtgggc acttgacgcg gccactatg 1200
ctgtgcacga tcgtctgcac gtgcccgtctg aatccccaga gtctaggagg cacataaggc 1260
tctcgtaaaa gcggagcaat tttgtaaatg gcctcaagaa acgtctcatc tttgcaccat 1320
attttaggcg ttcccggttg tgtatttaca tttaaaattc taaataaaat gcacaaaatc 1380
acagcaataa ccgctaaaag agccggagac atcacgtcga cacaaaaac 1429

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<210> 28

<211> 1194

<212> DNA

<213> Ctenocephalides felis

<220>

<221> CDS

<222> (1)..(1194)

<400> 28

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1 5 10 15

ttt aga att tta aat gta aat aca caa ccg gga acg cct aaa ata tgg 96
Phe Arg Ile Leu Asn Val Asn Thr Gln Pro Gly Thr Pro Lys Ile Trp
20 25 30

tgc aaa gat gag acg ttt ctt gag gcc att tac aaa att gct ccg ctt 144
Cys Lys Asp Glu Thr Phe Leu Glu Ala Ile Tyr Lys Ile Ala Pro Leu
35 40 45

tta cga gag cct tat gtg cct cct aga ctc tgg gga ttc agc ggg cac 192

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Leu Arg Glu Pro Tyr Val Pro Pro Arg Leu Trp Gly Phe Ser Gly His	
50 55 60	
gtg cag acg atc gtg cac agc ata gtg ggc cgc gtc aag tgc cca ctg	240
Val Gln Thr Ile Val His Ser Ile Val Gly Arg Val Lys Cys Pro Leu	
65 70 75 80	
cca ctc gga gag agg gtg tac ctg tca ctg gct gat ggg tcg acg ctc	288
Pro Leu Gly Glu Arg Val Tyr Leu Ser Leu Ala Asp Gly Ser Thr Leu	
85 90 95	
act tac gat cta tac aaa gct ctt aat ccg gat aaa cat gaa gat gag	336
Thr Tyr Asp Leu Tyr Lys Ala Leu Asn Pro Asp Lys His Glu Asp Glu	
100 105 110	
gta act ctg gca gtg tgc cct ggc ata agt aac tcc tcg gag tcg gtc	384
Val Thr Leu Ala Val Cys Pro Gly Ile Ser Asn Ser Ser Glu Ser Val	
115 120 125	
tac att cgc aca ttt gtc cat tac gca caa tat tac gga tac aga tgt	432
Tyr Ile Arg Thr Phe Val His Tyr Ala Gln Tyr Tyr Gly Tyr Arg Cys	
130 135 140	
gcc gta ctt aat cat att ggt gcc tta tct gga gtg cct gtc act aac	480
Ala Val Leu Asn His Ile Gly Ala Leu Ser Gly Val Pro Val Thr Asn	
145 150 155 160	
tct aga aat ttc agt tat ggt cat acc gat gat tat aat gaa atg att	528
Ser Arg Asn Phe Ser Tyr Gly His Thr Asp Asp Tyr Asn Glu Met Ile	
165 170 175	
cga cat ctg caa tca cag ttt cct cct tct aaa ata att tgt gtg ggc	576
Arg His Leu Gln Ser Gln Phe Pro Pro Ser Lys Ile Ile Cys Val Gly	
180 185 190	
tac agt tta aga ggc aat atc atc acc aaa tat ctt ggt gaa aag aca	624
Tyr Ser Leu Arg Gly Asn Ile Ile Thr Lys Tyr Leu Gly Glu Lys Thr	
195 200 205	
aaa att aaa aat ggt aat ata att gga gga att tca ata tgc caa gga	672
Lys Ile Lys Asn Gly Asn Ile Ile Gly Gly Ile Ser Ile Cys Gln Gly	
210 215 220	
tac aac gcc att gag ggt acg aaa tgg cta ctg aat tgg caa aat ttc	720
Tyr Asn Ala Ile Glu Gly Thr Lys Trp Leu Leu Asn Trp Gln Asn Phe	
225 230 235 240	
cgt cgt ttc tac ttg tat gtt tta aca gaa agt gta aag aca ata att	768

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Arg Arg Phe Tyr Leu Tyr Val Leu Thr Glu Ser Val Lys Thr Ile Ile
      245                      250                      255

ttg aaa cac aga cat att ctc ctg tcc gat gaa atg aaa tta aaa tgc 816
Leu Lys His Arg His Ile Leu Leu Ser Asp Glu Met Lys Leu Lys Cys
      260                      265                      270

caa ttg aat gag aga gat ata gca tcg gca gcc act ttg ccg gaa ttg 864
Gln Leu Asn Glu Arg Asp Ile Ala Ser Ala Ala Thr Leu Pro Glu Leu
      275                      280                      285

gat gac gcc tat acg aga aaa gtt cac aag ttt cca tct gta aac gct 912
Asp Asp Ala Tyr Thr Arg Lys Val His Lys Phe Pro Ser Val Asn Ala
      290                      295                      300

ttg tac aaa tgg agt tcc tgc ata aac tac atc cag gac att gaa act 960
Leu Tyr Lys Trp Ser Ser Cys Ile Asn Tyr Ile Gln Asp Ile Glu Thr
      305                      310                      315                      320

cca atg gtg ttc ata aat gct aaa gat gat cct cta ctc cat gat acg 1008
Pro Met Val Phe Ile Asn Ala Lys Asp Asp Pro Leu Leu His Asp Thr
      325                      330                      335

ctt cta gac cct ata aga aaa att gct ggt tct tct aga aga atg atc 1056
Leu Leu Asp Pro Ile Arg Lys Ile Ala Gly Ser Ser Arg Arg Met Ile
      340                      345                      350

tac gta gaa ctt tct cat gga ggt cat cca aga ttc ttt gaa agg ggt 1104
Tyr Val Glu Leu Ser His Gly Gly His Pro Arg Phe Phe Glu Arg Gly
      355                      360                      365

ctc ata tac ccc aat ccc gtt acc tgg ata gat agg gca gtg ata agc 1152
Leu Ile Tyr Pro Asn Pro Val Thr Trp Ile Asp Arg Ala Val Ile Ser
      370                      375                      380

ttg gtt ggn ggt ctc ctg ctt gca cat aat gaa aag agc tat 1194
Leu Val Xaa Gly Leu Leu Leu Ala His Asn Glu Lys Ser Tyr
      385                      390                      395

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<210> 29

<211> 398

<212> PRT

<213> Ctenocephalides felis

<400> 29

Met Ser Pro Ala Leu Leu Ala Val Ile Ala Val Ile Leu Cys Ile Leu

1

5

10

15

Phe	Arg	Ile	Leu	Asn	Val	Asn	Thr	Gln	Pro	Gly	Thr	Pro	Lys	Ile	Trp	20	25	30
Cys	Lys	Asp	Glu	Thr	Phe	Leu	Glu	Ala	Ile	Tyr	Lys	Ile	Ala	Pro	Leu	35	40	45
Leu	Arg	Glu	Pro	Tyr	Val	Pro	Pro	Arg	Leu	Trp	Gly	Phe	Ser	Gly	His	50	55	60
Val	Gln	Thr	Ile	Val	His	Ser	Ile	Val	Gly	Arg	Val	Lys	Cys	Pro	Leu	65	70	75
Pro	Leu	Gly	Glu	Arg	Val	Tyr	Leu	Ser	Leu	Ala	Asp	Gly	Ser	Thr	Leu	85	90	95
Thr	Tyr	Asp	Leu	Tyr	Lys	Ala	Leu	Asn	Pro	Asp	Lys	His	Glu	Asp	Glu	100	105	110
Val	Thr	Leu	Ala	Val	Cys	Pro	Gly	Ile	Ser	Asn	Ser	Ser	Glu	Ser	Val	115	120	125
Tyr	Ile	Arg	Thr	Phe	Val	His	Tyr	Ala	Gln	Tyr	Tyr	Gly	Tyr	Arg	Cys	130	135	140
Ala	Val	Leu	Asn	His	Ile	Gly	Ala	Leu	Ser	Gly	Val	Pro	Val	Thr	Asn	145	150	155
Ser	Arg	Asn	Phe	Ser	Tyr	Gly	His	Thr	Asp	Asp	Tyr	Asn	Glu	Met	Ile	165	170	175
Arg	His	Leu	Gln	Ser	Gln	Phe	Pro	Pro	Ser	Lys	Ile	Ile	Cys	Val	Gly	180	185	190
Tyr	Ser	Leu	Arg	Gly	Asn	Ile	Ile	Thr	Lys	Tyr	Leu	Gly	Glu	Lys	Thr	195	200	205
Lys	Ile	Lys	Asn	Gly	Asn	Ile	Ile	Gly	Gly	Ile	Ser	Ile	Cys	Gln	Gly	210	215	220
Tyr	Asn	Ala	Ile	Glu	Gly	Thr	Lys	Trp	Leu	Leu	Asn	Trp	Gln	Asn	Phe	225	230	235
Arg	Arg	Phe	Tyr	Leu	Tyr	Val	Leu	Thr	Glu	Ser	Val	Lys	Thr	Ile	Ile	245	250	255
Leu	Lys	His	Arg	His	Ile	Leu	Leu	Ser	Asp	Glu	Met	Lys	Leu	Lys	Cys	260	265	270

Gln Leu Asn Glu Arg Asp Ile Ala Ser Ala Ala Thr Leu Pro Glu Leu
275 280 285

Asp Asp Ala Tyr Thr Arg Lys Val His Lys Phe Pro Ser Val Asn Ala
290 295 300

Leu Tyr Lys Trp Ser Ser Cys Ile Asn Tyr Ile Gln Asp Ile Glu Thr
305 310 315 320

Pro Met Val Phe Ile Asn Ala Lys Asp Asp Pro Leu Leu His Asp Thr
325 330 335

Leu Leu Asp Pro Ile Arg Lys Ile Ala Gly Ser Ser Arg Arg Met Ile
340 345 350

Tyr Val Glu Leu Ser His Gly Gly His Pro Arg Phe Phe Glu Arg Gly
355 360 365

Leu Ile Tyr Pro Asn Pro Val Thr Trp Ile Asp Arg Ala Val Ile Ser
370 375 380

Leu Val Xaa Gly Leu Leu Leu Ala His Asn Glu Lys Ser Tyr
385 390 395

<210> 30

<211> 1194

<212> DNA

<213> Ctenocephalides felis

<400> 30

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atgagaaagt tctacgtaga tcattcttct agaagaacca gcaatttttc ttatagggtc 180
tagaagcgta tcatggagta gaggatcatc tttagcattt atgaacacca ttggagtttc 240
aatgtcctgg atgtagttta tgcaggaaact ccatttgtac aaagcgttta cagatggaaa 300
cttgtgaact tttctcgtat aggcgtcatc caattccggc aaagtggctg ccgatgctat 360
atctctctca ttcaattggc attttaattt catttcatcg gacaggagaa tatgtctgtg 420
tttcaaaatt attgtcttta cactttctgt taaaacatac aagtagaaac gacggaaatt 480
ttgccaatc agtagccatt tcgtaccctc aatggcggtg tacccttggc atattgaaat 540
tcctccaatt atattaccat ttttaatttt tgtcttttca ccaagatatt tggatgatgat 600
attgcctctt aaactgtagc ccacacaaat tatttttagaa ggaggaaact gtgattgcag 660
atgtcgaatc atttcattat aatcatcggt atgaccataa ctgaaatttc tagagttagt 720
gacaggcaact ccagataagg caccaatatg attaagtacg gcacatctgt atccgtaata 780
ttgtgcgtaa tggacaaatg tgcgaatgta gaccgactcc gaggagttac ttatgccagg 840
gcacactgcc agagttacct catcttcatt tttatccgga ttaagagctt tgtatagatc 900

gtaagtgagc gtcgacccat cagccagtga caggtacacc ctctctccga gtggcagtgg 960
gcacttgacg cggcccaacta tgctgtgcac gatcgtctgc acgtgccgc tgaatcccca 1020
gagtctagga ggcacataag gctctcgtaa aagcggagca attttgtaaa tggcctcaag 1080
aaacgtctca tctttgcacc atattttagg cgttcccggg tgtgtattta catttaaaat 1140
tctaaataaa atgcacaaaa tcacagcaat aaccgctaaa agagccggag acat 1194

<210> 31
<211> 765
<212> DNA
<213> Ctenocephalides felis

<220>
<221> CDS
<222> (2)..(763)

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His Asn Leu Tyr Leu His Ser Ala Leu Val Lys Ser Arg Asp Val Asp
1 5 10 15

agg aga aac ccg gag aaa gtg aga gac gct aat tat tat ttc ttt atc 97
Arg Arg Asn Pro Glu Lys Val Arg Asp Ala Asn Tyr Tyr Phe Phe Ile
20 25 30

gaa gca gcg att gca cta ttt ata tct ttc ata ata aat gtg ttc gta 145
Glu Ala Ala Ile Ala Leu Phe Ile Ser Phe Ile Ile Asn Val Phe Val
35 40 45

gtt gct gtg ttt gca cat ggt tta ttt aaa act act aac caa gaa atc 193
Val Ala Val Phe Ala His Gly Leu Phe Lys Thr Thr Asn Gln Glu Ile
50 55 60

tta gac act tgc aaa agt tca gcc cca tat atc cga gag gaa gcc cta 241
Leu Asp Thr Cys Lys Ser Ser Ala Pro Tyr Ile Arg Glu Glu Ala Leu
65 70 75 80

ata gtc ttt aac aac aat act gaa att gta gaa gcc gat ttg tac aaa 289
Ile Val Phe Asn Asn Asn Thr Glu Ile Val Glu Ala Asp Leu Tyr Lys
85 90 95

gga ggc att tat tta ggc tgt gcc ttc ggg gct gca gcc gtg tac att 337
Gly Gly Ile Tyr Leu Gly Cys Ala Phe Gly Ala Ala Ala Val Tyr Ile
100 105 110

tgg gct gtc gga ata ttg gca gcc ggt caa agt tct aca atg act ggg 385
Trp Ala Val Gly Ile Leu Ala Ala Gly Gln Ser Ser Thr Met Thr Gly
115 120 125

act tat gct ggt caa ttc gcc atg gag ggt ttc ctc aac cta caa tgg 433
 Thr Tyr Ala Gly Gln Phe Ala Met Glu Gly Phe Leu Asn Leu Gln Trp
 130 135 140

tct cgc tgg aag agg atc cta ttc acc cga atg att gcc atc ata cca 481
 Ser Arg Trp Lys Arg Ile Leu Phe Thr Arg Met Ile Ala Ile Ile Pro
 145 150 155 160

aca ttt ctg atg gca ttt ttc aat agc atc gaa gac cta tcg ggt atg 529
 Thr Phe Leu Met Ala Phe Phe Asn Ser Ile Glu Asp Leu Ser Gly Met
 165 170 175

aac gac ctt ctg aat gca gtg atg tcc tta caa cta cct ttt gcg acc 577
 Asn Asp Leu Leu Asn Ala Val Met Ser Leu Gln Leu Pro Phe Ala Thr
 180 185 190

cta ccg act ata gcg ttt acc agc aat gct gct atc atg gga gaa ttc 625
 Leu Pro Thr Ile Ala Phe Thr Ser Asn Ala Ala Ile Met Gly Glu Phe
 195 200 205

gtt aat gga gcg gtt aat tca gtc gtt gca atc ctt cta tcg att tta 673
 Val Asn Gly Ala Val Asn Ser Val Val Ala Ile Leu Leu Ser Ile Leu
 210 215 220

gta att gca atc aat att tat ttt gtg gtc gac cag gtt aat aat gga 721
 Val Ile Ala Ile Asn Ile Tyr Phe Val Val Asp Gln Val Asn Asn Gly
 225 230 235 240

gac ctg acg gaa ggc tat tta gct ctt ata gtg ata ttt gga at 765
 Asp Leu Thr Glu Gly Tyr Leu Ala Leu Ile Val Ile Phe Gly
 245 250

<210> 32
 <211> 254
 <212> PRT
 <213> Ctenocephalides felis

<400> 32
 His Asn Leu Tyr Leu His Ser Ala Leu Val Lys Ser Arg Asp Val Asp
 1 5 10 15

Arg Arg Asn Pro Glu Lys Val Arg Asp Ala Asn Tyr Tyr Phe Phe Ile
 20 25 30

Glu Ala Ala Ile Ala Leu Phe Ile Ser Phe Ile Ile Asn Val Phe Val
 35 40 45

Val Ala Val Phe Ala His Gly Leu Phe Lys Thr Thr Asn Gln Glu Ile
50 55 60

Leu Asp Thr Cys Lys Ser Ser Ala Pro Tyr Ile Arg Glu Glu Ala Leu
65 70 75 80

Ile Val Phe Asn Asn Asn Thr Glu Ile Val Glu Ala Asp Leu Tyr Lys
85 90 95

Gly Gly Ile Tyr Leu Gly Cys Ala Phe Gly Ala Ala Ala Val Tyr Ile
100 105 110

Trp Ala Val Gly Ile Leu Ala Ala Gly Gln Ser Ser Thr Met Thr Gly
115 120 125

Thr Tyr Ala Gly Gln Phe Ala Met Glu Gly Phe Leu Asn Leu Gln Trp
130 135 140

Ser Arg Trp Lys Arg Ile Leu Phe Thr Arg Met Ile Ala Ile Ile Pro
145 150 155 160

Thr Phe Leu Met Ala Phe Phe Asn Ser Ile Glu Asp Leu Ser Gly Met
165 170 175

Asn Asp Leu Leu Asn Ala Val Met Ser Leu Gln Leu Pro Phe Ala Thr
180 185 190

Leu Pro Thr Ile Ala Phe Thr Ser Asn Ala Ala Ile Met Gly Glu Phe
195 200 205

Val Asn Gly Ala Val Asn Ser Val Val Ala Ile Leu Leu Ser Ile Leu
210 215 220

Val Ile Ala Ile Asn Ile Tyr Phe Val Val Asp Gln Val Asn Asn Gly
225 230 235 240

Asp Leu Thr Glu Gly Tyr Leu Ala Leu Ile Val Ile Phe Gly
245 250

<210> 33
<211> 765
<212> DNA
<213> Ctenocephalides felis
<400> 33


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tcgaccacaa aataaatatt gattgcaatt actaaaatcg atagaaggat tgcaacgact 120
gaattaaccg ctccattaac gaattctccc atgatagcag cattgctggt aaacgctata 180
gtcggtaggg tcgcaaaagg tagttgtaag gacatcactg cattcagaag gtcgttcata 240
cccgataggt cttcgatgct attgaaaaat gccatcagaa atgttggtat gatggcaatc 300
attcgggtga ataggatcct cttccagcga gaccattgta gggtgaggaa accctccatg 360
gcgaattgac cagcataagt ccagtcatt gtagaacttt gaccggctgc caatattccg 420
acagcccaaa tgtacacggc tgcagccccg aaggcacagc ctaaataaat gcctcctttg 480
tacaaatcgg ctctacaat ttcagtattg ttgttaaaga ctattagggc ttcctctcgg 540
atatatgggg ctgaactttt gcaagtgtct aagatttctt ggtagtagt tttaaataaa 600
ccatgtgcaa acacagcaac tacgaacaca tttattatga aagatataaa tagtgcaatc 660
gctgcttcga taaagaaata ataattagcg tctctcactt tctccgggtt tctcctgtcg 720
acatctctcg actttacaag ggcactatgc aaatacaaat tgtga 765

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<210> 34
 <211> 762
 <212> DNA
 <213> Ctenocephalides felis

<220>
 <221> CDS
 <222> (1)..(762)

<400> 34

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His	Asn	Leu	Tyr	Leu	His	Ser	Ala	Leu	Val	Lys	Ser	Arg	Asp	Val	Asp	
1				5					10					15		

agg	aga	aac	ccg	gag	aaa	gtg	aga	gac	gct	aat	tat	tat	ttc	ttt	atc	96
Arg	Arg	Asn	Pro	Glu	Lys	Val	Arg	Asp	Ala	Asn	Tyr	Tyr	Phe	Phe	Ile	
			20					25					30			

gaa	gca	gcg	att	gca	cta	ttt	ata	tct	ttc	ata	ata	aat	gtg	ttc	gta	144
Glu	Ala	Ala	Ile	Ala	Leu	Phe	Ile	Ser	Phe	Ile	Ile	Asn	Val	Phe	Val	
			35				40					45				

gtt	gct	gtg	ttt	gca	cat	ggt	tta	ttt	aaa	act	act	aac	caa	gaa	atc	192
Val	Ala	Val	Phe	Ala	His	Gly	Leu	Phe	Lys	Thr	Thr	Asn	Gln	Glu	Ile	
		50				55					60					

tta	gac	act	tgc	aaa	agt	tca	gcc	cca	tat	atc	cga	gag	gaa	gcc	cta	240
Leu	Asp	Thr	Cys	Lys	Ser	Ser	Ala	Pro	Tyr	Ile	Arg	Glu	Glu	Ala	Leu	
	65				70				75					80		

ata	gtc	ttt	aac	aac	aat	act	gaa	att	gta	gaa	gcc	gat	ttg	tac	aaa	288
Ile	Val	Phe	Asn	Asn	Asn	Thr	Glu	Ile	Val	Glu	Ala	Asp	Leu	Tyr	Lys	
			85					90						95		

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gga ggc att tat tta ggc tgt gcc ttc ggg gct gca gcc gtg tac att 336
Gly Gly Ile Tyr Leu Gly Cys Ala Phe Gly Ala Ala Ala Val Tyr Ile
      100                      105                      110

tgg gct gtc gga ata ttg gca gcc ggt caa agt tct aca atg act ggg 384
Trp Ala Val Gly Ile Leu Ala Ala Gly Gln Ser Ser Thr Met Thr Gly
      115                      120                      125

act tat gct ggt caa ttc gcc atg gag ggt ttc ctc aac cta caa tgg 432
Thr Tyr Ala Gly Gln Phe Ala Met Glu Gly Phe Leu Asn Leu Gln Trp
      130                      135                      140

tct cgc tgg aag agg atc cta ttc acc cga atg att gcc atc ata cca 480
Ser Arg Trp Lys Arg Ile Leu Phe Thr Arg Met Ile Ala Ile Ile Pro
      145                      150                      155                      160

aca ttt ctg atg gca ttt ttc aat agc atc gaa gac cta tcg ggt atg 528
Thr Phe Leu Met Ala Phe Phe Asn Ser Ile Glu Asp Leu Ser Gly Met
      165                      170                      175

aac gac ctt ctg aat gca gtg atg tcc tta caa cta cct ttt gcg acc 576
Asn Asp Leu Leu Asn Ala Val Met Ser Leu Gln Leu Pro Phe Ala Thr
      180                      185                      190

cta ccg act ata gcg ttt acc agc aat gct gct atc atg gga gaa ttc 624
Leu Pro Thr Ile Ala Phe Thr Ser Asn Ala Ala Ile Met Gly Glu Phe
      195                      200                      205

gtt aat gga gcg gtt aat tca gtc gtt gca atc ctt cta tcg att tta 672
Val Asn Gly Ala Val Asn Ser Val Val Ala Ile Leu Leu Ser Ile Leu
      210                      215                      220

gta att gca atc aat att tat ttt gtg gtc gac cag gtt aat aat gga 720
Val Ile Ala Ile Asn Ile Tyr Phe Val Val Asp Gln Val Asn Asn Gly
      225                      230                      235                      240

gac ctg acg gaa ggc tat tta gct ctt ata gtg ata ttt gga 762
Asp Leu Thr Glu Gly Tyr Leu Ala Leu Ile Val Ile Phe Gly
      245                      250

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<210> 35

<211> 254

<212> PRT

<213> Ctenocephalides felis

<400> 35

00991936-1201

His	Asn	Leu	Tyr	Leu	His	Ser	Ala	Leu	Val	Lys	Ser	Arg	Asp	Val	Asp	1	5	10	15
Arg	Arg	Asn	Pro	Glu	Lys	Val	Arg	Asp	Ala	Asn	Tyr	Tyr	Phe	Phe	Ile	20	25	30	
Glu	Ala	Ala	Ile	Ala	Leu	Phe	Ile	Ser	Phe	Ile	Ile	Asn	Val	Phe	Val	35	40	45	
Val	Ala	Val	Phe	Ala	His	Gly	Leu	Phe	Lys	Thr	Thr	Asn	Gln	Glu	Ile	50	55	60	
Leu	Asp	Thr	Cys	Lys	Ser	Ser	Ala	Pro	Tyr	Ile	Arg	Glu	Glu	Ala	Leu	65	70	75	80
Ile	Val	Phe	Asn	Asn	Asn	Thr	Glu	Ile	Val	Glu	Ala	Asp	Leu	Tyr	Lys	85	90	95	
Gly	Gly	Ile	Tyr	Leu	Gly	Cys	Ala	Phe	Gly	Ala	Ala	Ala	Val	Tyr	Ile	100	105	110	
Trp	Ala	Val	Gly	Ile	Leu	Ala	Ala	Gly	Gln	Ser	Ser	Thr	Met	Thr	Gly	115	120	125	
Thr	Tyr	Ala	Gly	Gln	Phe	Ala	Met	Glu	Gly	Phe	Leu	Asn	Leu	Gln	Trp	130	135	140	
Ser	Arg	Trp	Lys	Arg	Ile	Leu	Phe	Thr	Arg	Met	Ile	Ala	Ile	Ile	Pro	145	150	155	160
Thr	Phe	Leu	Met	Ala	Phe	Phe	Asn	Ser	Ile	Glu	Asp	Leu	Ser	Gly	Met	165	170	175	
Asn	Asp	Leu	Leu	Asn	Ala	Val	Met	Ser	Leu	Gln	Leu	Pro	Phe	Ala	Thr	180	185	190	
Leu	Pro	Thr	Ile	Ala	Phe	Thr	Ser	Asn	Ala	Ala	Ile	Met	Gly	Glu	Phe	195	200	205	
Val	Asn	Gly	Ala	Val	Asn	Ser	Val	Val	Ala	Ile	Leu	Leu	Ser	Ile	Leu	210	215	220	
Val	Ile	Ala	Ile	Asn	Ile	Tyr	Phe	Val	Val	Asp	Gln	Val	Asn	Asn	Gly	225	230	235	240
Asp	Leu	Thr	Glu	Gly	Tyr	Leu	Ala	Leu	Ile	Val	Ile	Phe	Gly	245	250				

<210> 36
 <211> 762
 <212> DNA
 <213> Ctenocephalides felis

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 attaaccgct ccattaacga attctcccat gatagcagca ttgctggtaa acgctatagt 180
 cggtagggtc gcaaaaaggta gttgtaagga catcactgca ttcagaaggc cggtcatacc 240
 cgatagggtc tcgatgctat tgaaaaatgc catcagaaat gttgggtatga tggcaatcat 300
 tcgggtgaat aggatcctct tccagcgaga ccattgtagg ttgaggaaac cctccatggc 360
 gaattgacca gcataagtcc cagtcattgt agaactttga ccggctgcca atattccgac 420
 agcccaaagt tacacggctg cagccccgaa ggcacagcct aaataaatgc ctcctttgta 480
 caaatcggct tctacaattt cagtattgtt gttaaagact attagggctt cctctcggat 540
 atatggggct gaacttttgc aagtgtctaa gatttcttgg ttagtagttt taaataaacc 600
 atgtgcaaac acagcaacta cgaacacatt tattatgaaa gatataaata gtgcaatcgc 660
 tgcttcgata aagaaataat aattagcgtc tctcactttc tccgggtttc tcctgtcgac 720
 atctctcgac tttacaaggc cactatgcaa atacaaattg tg 762

<210> 37
 <211> 604
 <212> DNA
 <213> Ctenocephalides felis

<220>
 <221> CDS
 <222> (26)..(430)

<400> 37
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 1 5
 gca gcc ttg ttg gtt tgc tct gtt ttt gct aga cct caa gaa gat aaa 100
 Ala Ala Leu Leu Val Cys Ser Val Phe Ala Arg Pro Gln Glu Asp Lys
 10 15 20 25
 tat act agc aaa ttt gat aac atc aat tta gat gaa att ttg caa agc 148
 Tyr Thr Ser Lys Phe Asp Asn Ile Asn Leu Asp Glu Ile Leu Gln Ser
 30 35 40
 aat aga ttg ctc aac aac tat gta aac tgc ctt ctc gac aaa ggc agc 196
 Asn Arg Leu Leu Asn Asn Tyr Val Asn Cys Leu Leu Asp Lys Gly Ser
 45 50 55

tgc aca gca gaa gga aaa gaa ttg aaa aaa gtc tta cct gat gcc tta 244
Cys Thr Ala Glu Gly Lys Glu Leu Lys Lys Val Leu Pro Asp Ala Leu
60 65 70

tcc aac gag tgc gct aaa tgt agc gag aaa caa aga gaa gga gct gag 292
Ser Asn Glu Cys Ala Lys Cys Ser Glu Lys Gln Arg Glu Gly Ala Glu
75 80 85

aaa gta atc aga ttt ttc gtc aac aac aaa cca gaa gag tgg aag aaa 340
Lys Val Ile Arg Phe Phe Val Asn Asn Lys Pro Glu Glu Trp Lys Lys
90 95 100 105

ctt tct gca gtt tac gat cca acc ggc gag tac aca aag aaa tat agc 388
Leu Ser Ala Val Tyr Asp Pro Thr Gly Glu Tyr Thr Lys Lys Tyr Ser
110 115 120

acc caa att gaa caa gtg aag aga ggc gaa ccc gtt aca gtt 430
Thr Gln Ile Glu Gln Val Lys Arg Gly Glu Pro Val Thr Val
125 130 135

taaatttcca aaaagagatt tctcaaaata ttggcaagtc atttaggaat cgtagtggtta 490

ttttcacctg tagatatattc tgtttttaat aataaaaaaa atgtagttgt aggacaaata 550

gagcatatattt aaataaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 604

<210> 38

<211> 135

<212> PRT

<213> Ctenocephalides felis

<400> 38

Met Arg Ser Phe Leu Leu Ala Thr Phe Ala Ala Leu Leu Val Cys Ser
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Val Phe Ala Arg Pro Gln Glu Asp Lys Tyr Thr Ser Lys Phe Asp Asn
20 25 30

Ile Asn Leu Asp Glu Ile Leu Gln Ser Asn Arg Leu Leu Asn Asn Tyr
35 40 45

Val Asn Cys Leu Leu Asp Lys Gly Ser Cys Thr Ala Glu Gly Lys Glu
50 55 60

Leu Lys Lys Val Leu Pro Asp Ala Leu Ser Asn Glu Cys Ala Lys Cys
65 70 75 80

Ser Glu Lys Gln Arg Glu Gly Ala Glu Lys Val Ile Arg Phe Phe Val
85 90 95

Asn Asn Lys Pro Glu Glu Trp Lys Lys Leu Ser Ala Val Tyr Asp Pro
100 105 110

Thr Gly Glu Tyr Thr Lys Lys Tyr Ser Thr Gln Ile Glu Gln Val Lys
115 120 125

Arg Gly Glu Pro Val Thr Val
130 135

<210> 39
<211> 604
<212> DNA
<213> Ctenocephalides felis

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tacgattcct aaatgacttg ccaatatttt gagaaatctc tttttggaaa tttaaactgt 180
aacgggttcg cctctcttca ctgtttcaat ttgggtgcta tatttctttg tgtactcgcc 240
ggttggtatg taaactgcag aaagtttctt ccactcttct ggtttggttg tgacgaaaaa 300
tctgattact ttctcagctc cttctctttg tttctcgcta catttagcgc actcgttgga 360
taaggcatca ggtaagactt ttttcaattc ttttccttct gctgtgcagc tgcctttgtc 420
gagaaggcag tttacatagt tgttgagcaa tctattgctt tgcaaaattt catctaaatt 480
gatgttatca aatttgctag tatatttata ttcttgaggt ctagcaaaaa cagagcaaac 540
caacaaggct gcgaatgtag cgaggaggaa ggatctcatt ttgatctgta agtaagagta 600
ttga 604

<210> 40
<211> 405
<212> DNA
<213> Ctenocephalides felis

<220>
<221> CDS
<222> (1)..(405)

<400> 40
atg aga tcc ttc ctc ctc gct aca ttc gca gcc ttg ttg gtt tgc tct 48
Met Arg Ser Phe Leu Leu Ala Thr Phe Ala Ala Leu Leu Val Cys Ser
1 5 10 15

gtt	ttt	gct	aga	cct	caa	gaa	gat	aaa	tat	act	agc	aaa	ttt	gat	aac	96	
Val	Phe	Ala	Arg	Pro	Gln	Glu	Asp	Lys	Tyr	Thr	Ser	Lys	Phe	Asp	Asn		
20						25						30					
atc	aat	tta	gat	gaa	att	ttg	caa	agc	aat	aga	ttg	ctc	aac	aac	tat	144	
Ile	Asn	Leu	Asp	Glu	Ile	Leu	Gln	Ser	Asn	Arg	Leu	Leu	Asn	Asn	Tyr		
35						40						45					
gta	aac	tgc	ctt	ctc	gac	aaa	ggc	agc	tgc	aca	gca	gaa	gga	aaa	gaa	192	
Val	Asn	Cys	Leu	Leu	Asp	Lys	Gly	Ser	Cys	Thr	Ala	Glu	Gly	Lys	Glu		
50						55						60					
ttg	aaa	aaa	gtc	tta	cct	gat	gcc	tta	tcc	aac	gag	tgc	gct	aaa	tgt	240	
Leu	Lys	Lys	Val	Leu	Pro	Asp	Ala	Leu	Ser	Asn	Glu	Cys	Ala	Lys	Cys		
65						70						75			80		
agc	gag	aaa	caa	aga	gaa	gga	gct	gag	aaa	gta	atc	aga	ttt	ttc	gtc	288	
Ser	Glu	Lys	Gln	Arg	Glu	Gly	Ala	Glu	Lys	Val	Ile	Arg	Phe	Phe	Val		
85								90								95	
aac	aac	aaa	cca	gaa	gag	tg	aag	aaa	ctt	tct	gca	gtt	tac	gat	cca	336	
Asn	Asn	Lys	Pro	Glu	Glu	Trp	Lys	Lys	Leu	Ser	Ala	Val	Tyr	Asp	Pro		
100						105						110					
acc	ggc	gag	tac	aca	aag	aaa	tat	agc	acc	caa	att	gaa	caa	gtg	aag	384	
Thr	Gly	Glu	Tyr	Thr	Lys	Lys	Tyr	Ser	Thr	Gln	Ile	Glu	Gln	Val	Lys		
115						120						125					
aga	ggc	gaa	ccc	gtt	aca	gtt										405	
Arg	Gly	Glu	Pro	Val	Thr	Val											
130						135											

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<210> 41
<211> 135
<212> PRT
<213> Ctenocephalides felis
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Val Asn Cys Leu Leu Asp Lys Gly Ser Cys Thr Ala Glu Gly Lys Glu
50 55 60

Leu Lys Lys Val Leu Pro Asp Ala Leu Ser Asn Glu Cys Ala Lys Cys
65 70 75 80

Ser Glu Lys Gln Arg Glu Gly Ala Glu Lys Val Ile Arg Phe Phe Val
85 90 95

Asn Asn Lys Pro Glu Glu Trp Lys Lys Leu Ser Ala Val Tyr Asp Pro
100 105 110

Thr Gly Glu Tyr Thr Lys Lys Tyr Ser Thr Gln Ile Glu Gln Val Lys
115 120 125

Arg Gly Glu Pro Val Thr Val
130 135

<210> 42
<211> 405
<212> DNA
<213> Ctenocephalides felis

<400> 42
aactgtaacg gggttcgcctc tcttcacttg ttcaatttgg gtgctatatt tctttgtgta 60
ctcgccgggtt ggatcgtaaa ctgcagaaaag tttcttccac tcttctgggtt tgttggtgac 120
gaaaaatctg attactttct cagctccttc tctttgtttc tcgctacatt tagcgcactc 180
gttgataag gcatcaggtg agactttttt caattctttt ccttctgctg tgcagctgcc 240
tttgctcgaga aggcagttta catagttggt gagcaatcta ttgctttgca aaatttcac 300
taaattgatg ttatcaaatt tgctagtata tttatcttct tgagggtctag caaaaacaga 360
gcaaaccaac aaggctgcga atgtagcgag gaggaaggat ctcat 405

<210> 43
<211> 1227
<212> DNA
<213> Ctenocephalides felis

<220>
<221> CDS
<222> (312)..(1049)

<400> 43
gcgttttcta aaacaaactt ctttataatg taaataaata gaaatgaaat gtgaataaat 60
ttgagtatga aaacaaatta atcaacaaca caatttaatt tccttatttc atttataatg 120

ttggcattct aataaattaa gttattatga gaaaacttca ttacagtgat gtgtcaagct	180
cctgtcaaaa taaattgaaa atctgtttgt gataaaaatt gttttttcta taaaaatagc	240
ataatttagg aaactatatc gaaaaaataa taaattttta agtggccctt taatatcttc	300
tagaattaaa t atg gca acc gta ccc ctt atg ttt gct gaa gat gac cta	350
Met Ala Thr Val Pro Leu Met Phe Ala Glu Asp Asp Leu	
1 5 10	
gaa ggt ggt gga aaa gaa ggt tca ata gag aat gac ttt gca tat aac	398
Glu Gly Gly Gly Lys Glu Gly Ser Ile Glu Asn Asp Phe Ala Tyr Asn	
15 20 25	
aat aac gtt att aat gca tct gtt cgt gtg aga ctt gga ttc att cga	446
Asn Asn Val Ile Asn Ala Ser Val Arg Val Arg Leu Gly Phe Ile Arg	
30 35 40 45	
aaa gtc tat gga cta ctt aca gtt cag ttg tta ttg agc ttg ctg gtg	494
Lys Val Tyr Gly Leu Leu Thr Val Gln Leu Leu Leu Ser Leu Leu Val	
50 55 60	
ggc ata gcc tgc caa att gag cct gta caa gga att gtt aaa gca aat	542
Gly Ile Ala Cys Gln Ile Glu Pro Val Gln Gly Ile Val Lys Ala Asn	
65 70 75	
gac tgg ctc gta tta gtc tgc atg atc agt agc att ggt gtg ctg att	590
Asp Trp Leu Val Leu Val Cys Met Ile Ser Ser Ile Gly Val Leu Ile	
80 85 90	
gct ctt cac atc aag aga aag gaa aca cca act aat ttt att ctt tta	638
Ala Leu His Ile Lys Arg Lys Glu Thr Pro Thr Asn Phe Ile Leu Leu	
95 100 105	
aca att ttc aca att aca aac tcc atc agt gtg ggt gtg cta gta aca	686
Thr Ile Phe Thr Ile Thr Asn Ser Ile Ser Val Gly Val Leu Val Thr	
110 115 120 125	
cat ttt aaa gct agt tta gta ctt caa gct att gca att act ttg tgt	734
His Phe Lys Ala Ser Leu Val Leu Gln Ala Ile Ala Ile Thr Leu Cys	
130 135 140	
gtt gtt att ggt ata aca ctc ttt aca tta caa aac aaa ctg gat tta	782
Val Val Ile Gly Ile Thr Leu Phe Thr Leu Gln Asn Lys Leu Asp Leu	
145 150 155	
tca atg ctc cca gca gca ttg ttt act gga ctt tgc tgt tta ttg gta	830

Ser Met Leu Pro Ala Ala Leu Phe Thr Gly Leu Cys Cys Leu Leu Val
160 165 170

ggt ggt atc att cag ata ttc act cat tca acc att ttt gaa tta gtg 878
Gly Gly Ile Ile Gln Ile Phe Thr His Ser Thr Ile Phe Glu Leu Val
175 180 185

tta tgc agt ttt ggt gca cta ata ttc agc ttg ttt ttg ctt tat gac 926
Leu Cys Ser Phe Gly Ala Leu Ile Phe Ser Leu Phe Leu Leu Tyr Asp
190 195 200 205

acg cat gtt atg atg acg aca tta tca cca gaa gag tat att ttg gcc 974
Thr His Val Met Met Thr Thr Leu Ser Pro Glu Glu Tyr Ile Leu Ala
210 215 220

aca att aac ttg tac tta gat att gtc aat cta ttc ata tat att tta 1022
Thr Ile Asn Leu Tyr Leu Asp Ile Val Asn Leu Phe Ile Tyr Ile Leu
225 230 235

aga att ctg caa gca gca gac agg ggt taaatcatct gtgataaaat 1069
Arg Ile Leu Gln Ala Ala Asp Arg Gly
240 245

ataaatgggtt caaaattcta tattgtatta tttatatatt taaaaatgcc ttgcttattt 1129

atattgtatg tttccattta ttgtatatag tttattttgt tatttttatgg ccaagattaa 1189

taaattcgaa attaatatgc aaaaaaaaaa aaaaaaaaaa 1227

<210> 44

<211> 246

<212> PRT

<213> Ctenocephalides felis

<400> 44

Met Ala Thr Val Pro Leu Met Phe Ala Glu Asp Asp Leu Glu Gly Gly
1 5 10 15

Gly Lys Glu Gly Ser Ile Glu Asn Asp Phe Ala Tyr Asn Asn Asn Val
20 25 30

Ile Asn Ala Ser Val Arg Val Arg Leu Gly Phe Ile Arg Lys Val Tyr
35 40 45

Gly Leu Leu Thr Val Gln Leu Leu Leu Ser Leu Leu Val Gly Ile Ala
50 55 60

Cys Gln Ile Glu Pro Val Gln Gly Ile Val Lys Ala Asn Asp Trp Leu
65 70 75 80

Val Leu Val Cys Met Ile Ser Ser Ile Gly Val Leu Ile Ala Leu His
85 90 95

Ile Lys Arg Lys Glu Thr Pro Thr Asn Phe Ile Leu Leu Thr Ile Phe
100 105 110

Thr Ile Thr Asn Ser Ile Ser Val Gly Val Leu Val Thr His Phe Lys
115 120 125

Ala Ser Leu Val Leu Gln Ala Ile Ala Ile Thr Leu Cys Val Val Ile
130 135 140

Gly Ile Thr Leu Phe Thr Leu Gln Asn Lys Leu Asp Leu Ser Met Leu
145 150 155 160

Pro Ala Ala Leu Phe Thr Gly Leu Cys Cys Leu Leu Val Gly Gly Ile
165 170 175

Ile Gln Ile Phe Thr His Ser Thr Ile Phe Glu Leu Val Leu Cys Ser
180 185 190

Phe Gly Ala Leu Ile Phe Ser Leu Phe Leu Leu Tyr Asp Thr His Val
195 200 205

Met Met Thr Thr Leu Ser Pro Glu Glu Tyr Ile Leu Ala Thr Ile Asn
210 215 220

Leu Tyr Leu Asp Ile Val Asn Leu Phe Ile Tyr Ile Leu Arg Ile Leu
225 230 235 240

Gln Ala Ala Asp Arg Gly
245

<210> 45

<211> 1227

<212> DNA

<213> Ctenocephalides felis

<400> 45

tttttttttt ttttttttgc atattaattt cgaatttatt aatcttg gcc ataaaataac 60
aaaataaact atatacaata aatggaaaca tacaatataa ataagcaagg catttttaaa 120
tatataaata atacaatata gaattttgaa ccatttatat tttatcacag atgatttaac 180
ccctgtctgc tgcttgcaga attcttaaaa tatatatgaa tagattgaca atatctaagt 240

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acaagttaat tgtggccaaa atatactctt ctggtgataa tgtcgtcatc ataacatgcg 300
tgtcataaag caaaaacaag ctgaatatta gtgcaccaaa actgcataac actaattcaa 360
aaatggttga atgagtgaat atctgaatga taccacctac caataaacag caaagtccag 420
taaacaatgc tgctgggagc attgataaat ccagtttggt ttgtaatgta aagagtgtta 480
taccaataac aacacacaaa gtaattgcaa tagcttgaag tactaaacta gctttaaaat 540
gtgttactag cacacccaca ctgatggagt ttgtaattgt gaaaattggt aaaagaataa 600
aattagttgg tgtttccttt ctcttgatgt gaagagcaat cagcacacca atgctactga 660
tcatgcagac taatacgagc cagtcatttg ctttaacaat tccttgtaaa ggctcaattt 720
ggcaggctat gccaccagc aagctcaata acaactgaac tgtaagtagt ccatagactt 780
ttcgaatgaa tccaagtctc acacgaacag atgcattaat aacgttattg ttatatgcaa 840
agtcattctc tattgaacct tcttttcac caccctctag gtcattctca gcaaacataa 900
gggttacggt tgccatattt aattctagaa gatattaaag ggccacttaa aaatttatta 960
ttttttcgat atagtttctt aaattatgct atttttatag aaaaaacaat ttttatcaca 1020
aacagatttt caattttatt tgacaggagc ttgacacatc actgtaatga agttttctca 1080
taataactta atttattaga atgccaacat tataaatgaa ataaggaaat taaattgtgt 1140
tggtgattaa tttgttttca tactcaaatt tattcacatt tcatttctat ttatttacat 1200
tataaagaag tttgttttag aaaacgc 1227

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<210> 46
 <211> 738
 <212> DNA
 <213> Ctenocephalides felis

<220>
 <221> CDS
 <222> (1)..(738)

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<400> 46
atg gca acc gta ccc ctt atg ttt gct gaa gat gac cta gaa ggt ggt 48
Met Ala Thr Val Pro Leu Met Phe Ala Glu Asp Asp Leu Glu Gly Gly
  1             5             10             15

gga aaa gaa ggt tca ata gag aat gac ttt gca tat aac aat aac gtt 96
Gly Lys Glu Gly Ser Ile Glu Asn Asp Phe Ala Tyr Asn Asn Asn Val
      20             25             30

att aat gca tct gtt cgt gtg aga ctt gga ttc att cga aaa gtc tat 144
Ile Asn Ala Ser Val Arg Val Arg Leu Gly Phe Ile Arg Lys Val Tyr
      35             40             45

gga cta ctt aca gtt cag ttg tta ttg agc ttg ctg gtg ggc ata gcc 192
Gly Leu Leu Thr Val Gln Leu Leu Leu Ser Leu Leu Val Gly Ile Ala
      50             55             60

tgc caa att gag cct gta caa gga att gtt aaa gca aat gac tgg ctc 240
Cys Gln Ile Glu Pro Val Gln Gly Ile Val Lys Ala Asn Asp Trp Leu
      65             70             75             80

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gta tta gtc tgc atg atc agt agc att ggt gtg ctg att gct ctt cac	288
Val Leu Val Cys Met Ile Ser Ser Ile Gly Val Leu Ile Ala Leu His	
85 90 95	
atc aag aga aag gaa aca cca act aat ttt att ctt tta aca att ttc	336
Ile Lys Arg Lys Glu Thr Pro Thr Asn Phe Ile Leu Leu Thr Ile Phe	
100 105 110	
aca att aca aac tcc atc agt gtg ggt gtg cta gta aca cat ttt aaa	384
Thr Ile Thr Asn Ser Ile Ser Val Gly Val Leu Val Thr His Phe Lys	
115 120 125	
gct agt tta gta ctt caa gct att gca att act ttg tgt gtt gtt att	432
Ala Ser Leu Val Leu Gln Ala Ile Ala Ile Thr Leu Cys Val Val Ile	
130 135 140	
ggg ata aca ctc ttt aca tta caa aac aaa ctg gat tta tca atg ctc	480
Gly Ile Thr Leu Phe Thr Leu Gln Asn Lys Leu Asp Leu Ser Met Leu	
145 150 155 160	
cca gca gca ttg ttt act gga ctt tgc tgt tta ttg gta ggt ggt atc	528
Pro Ala Ala Leu Phe Thr Gly Leu Cys Cys Leu Leu Val Gly Gly Ile	
165 170 175	
att cag ata ttc act cat tca acc att ttt gaa tta gtg tta tgc agt	576
Ile Gln Ile Phe Thr His Ser Thr Ile Phe Glu Leu Val Leu Cys Ser	
180 185 190	
ttt ggt gca cta ata ttc agc ttg ttt ttg ctt tat gac acg cat gtt	624
Phe Gly Ala Leu Ile Phe Ser Leu Phe Leu Leu Tyr Asp Thr His Val	
195 200 205	
atg atg acg aca tta tca cca gaa gag tat att ttg gcc aca att aac	672
Met Met Thr Thr Leu Ser Pro Glu Glu Tyr Ile Leu Ala Thr Ile Asn	
210 215 220	
ttg tac tta gat att gtc aat cta ttc ata tat att tta aga att ctg	720
Leu Tyr Leu Asp Ile Val Asn Leu Phe Ile Tyr Ile Leu Arg Ile Leu	
225 230 235 240	
caa gca gca gac agg ggt	738
Gln Ala Ala Asp Arg Gly	
245	

<210> 47

<211> 246

<212> PRT

<213> Ctenocephalides felis

<400> 47

Met Ala Thr Val Pro Leu Met Phe Ala Glu Asp Asp Leu Glu Gly Gly
1 5 10 15

Gly Lys Glu Gly Ser Ile Glu Asn Asp Phe Ala Tyr Asn Asn Asn Val
20 25 30

Ile Asn Ala Ser Val Arg Val Arg Leu Gly Phe Ile Arg Lys Val Tyr
35 40 45

Gly Leu Leu Thr Val Gln Leu Leu Leu Ser Leu Leu Val Gly Ile Ala
50 55 60

Cys Gln Ile Glu Pro Val Gln Gly Ile Val Lys Ala Asn Asp Trp Leu
65 70 75 80

Val Leu Val Cys Met Ile Ser Ser Ile Gly Val Leu Ile Ala Leu His
85 90 95

Ile Lys Arg Lys Glu Thr Pro Thr Asn Phe Ile Leu Leu Thr Ile Phe
100 105 110

Thr Ile Thr Asn Ser Ile Ser Val Gly Val Leu Val Thr His Phe Lys
115 120 125

Ala Ser Leu Val Leu Gln Ala Ile Ala Ile Thr Leu Cys Val Val Ile
130 135 140

Gly Ile Thr Leu Phe Thr Leu Gln Asn Lys Leu Asp Leu Ser Met Leu
145 150 155 160

Pro Ala Ala Leu Phe Thr Gly Leu Cys Cys Leu Leu Val Gly Gly Ile
165 170 175

Ile Gln Ile Phe Thr His Ser Thr Ile Phe Glu Leu Val Leu Cys Ser
180 185 190

Phe Gly Ala Leu Ile Phe Ser Leu Phe Leu Leu Tyr Asp Thr His Val
195 200 205

Met Met Thr Thr Leu Ser Pro Glu Glu Tyr Ile Leu Ala Thr Ile Asn
210 215 220

Leu Tyr Leu Asp Ile Val Asn Leu Phe Ile Tyr Ile Leu Arg Ile Leu
225 230 235 240

Gln Ala Ala Asp Arg Gly
245

<210> 48
<211> 738
<212> DNA
<213> Ctenocephalides felis

<400> 48
acccctgtct gctgcttgca gaattcttaa aatatatatg aatagattga caatatctaa 60
gtacaagtta attgtggcca aaatatactc ttctggtgat aatgtcgtca tcataacatg 120
cgtgtcataa agcaaaaaca agctgaatat tagtgcacca aaactgcata acactaattc 180
aaaaatggtt gaatgagtga atatctgaat gataccacct accaataaac agcaaagtc 240
agtaaacaat gctgctggga gcattgataa atccagtttg ttttgtaatg taaagagtgt 300
tataccaata acaacacaca aagtaattgc aatagcttga agtactaaac tagctttaaa 360
atgtgttact agcacacca cactgatgga gtttgtaatt gtgaaaattg ttaaaagaat 420
aaaattagtt ggtgtttcct ttctcttgat gtgaagagca atcagcacac caatgctact 480
gatcatgcag actaatacga gccagtcatt tgctttaaca attccttgta caggctcaat 540
ttggcaggct atgcccacca gcaagctcaa taacaactga actgtaagta gtccatagac 600
ttttcgaatg aatccaagtc tcacacgaac agatgcatta ataacgttat tgttatatgc 660
aaagtcattc tctattgaac cttcttttcc accaccttct aggtcatctt cagcaaacat 720
aaggggtacg gttgccat 738

<210> 49
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 49
gcggatccta tgctgaattg caagaacctt g 31

<210> 50
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 50
caggtaccct cttttagaag caccggtccc

30

<210> 51
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 51
cgggatcctg ctgacaggaa ttcgcccac

29

<210> 52
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 52
catggtaccc ctggtttaag ccttacttag c

31

<210> 53
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 53
ccattattaa cctggtcgac cac

23

<210> 54
<211> 18
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Primer

<400> 54

ggaaacagta tgaccatg

18

<210> 55

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Primer

<400> 55

cgctatagtc ggtagggctg c

21

<210> 56

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Primer

<400> 56

aattaaccct cactaaagg

20

<210> 57

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Primer

<400> 57

caaaactggt ctccccgctc

20

<210> 58
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 58
taatacgact cactataggg 20

<210> 59
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 59
ggttcgctc tcttcacttg 20

<210> 60
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 60
cggttgatc gtaaactgca g 21

<210> 61
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 61
cgcggatcca gaagataaat atactagcaa atttgataac

40

<210> 62
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 62
gaggaattcc tcttttttga aatttaaact gtaacgg

37

<210> 63
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 63
accaggncga ataatatcttc taattgtttc aatacaaaact ataaaanggta ttaaaattat 60
tggagttcct tgaggcacta gatgactaaa tatatgggta taattattaa ttcacacctan 120
taatataaat cttaatcata aaggaagtct taatctttaa gttaaaggta aatgactagt 180
tcttgtnaaa atgtaattaa ataatcctaa aaaattatta aataaaaata atgaaaataa 240
tctaataaat ataaaaggtc ttcctatagg atttatatttt ataagtaatt taaattcatt 300
atgaagtgtt ataataattt ttaatcaa attggtgtat cgggacggaa ttattcanaa 360
tatatttggg ataaataata ntccataac ctgccggnnn tttgtntnnt ctctccnnct 420
ntccannctn atcnctncc cntcnnnnt ganatnctn tnnnnnctnt ctcccctn 480
tacnctgnnn ctccnnnttc 500

<210> 64
<211> 164
<212> DNA
<213> Ctenocephalides felis

<400> 64
gcagctaaca agaattgtatt aactgcattc caaagaagaa attattctga tgaattatct 60
ttgacatttg ctgctgcaa taaggattc tatgactcag tagatgtaaa gcagggtggat 120
gttccatctt tcagtgggtgc ttttggtatc tttagctaaac acgt 164

<210> 65
<211> 337
<212> DNA

<213> Ctenocephalides felis

<400> 65

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cgcttccagt tgacgtttcg tctcatgcaa taattaatta aacttgtttg ttagagggtgc 60
aaaataaaat taaattaaaa tgactgcctg gagacaagct ggtttaaact acattaactt 120
ttcaacaatt gctgcccga tgggccgcca agctttgaaa tctgatctaa aaaatgaggc 180
tttgaaacgg gacgtatcta gcattaaatt cacaccctgg aaggacggaa aagcgatcac 240
tggaaaaccg gaataaaatc aaatactcat ctataaaagt gaaaccaagt aatcacaaga 300
tggaataata gacaattcac tcaaattaat aatgtgt 337
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<210> 66

<211> 201

<212> DNA

<213> Ctenocephalides felis

<400> 66

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acaggccatt tatgtgccag ctgatgactt gacagatcct gcccctgcc ctacattcgc 60
tcacttgga gccaccactg tattgtccc tgccattgct gaattaggta tctaccagc 120
tgtggatcct ttggattcta catcccgtat tatggacccc aacatcattg gagctgaaca 180
ttacaacatt gcccgtaggc t 201
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<210> 67

<211> 179

<212> DNA

<213> Ctenocephalides felis

<400> 67

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accttgagac ttttggcagc taacaagaat gtattaactg cattccaaag aagaaattat 60
tctgatgaat tatctttgac atttgctgct gccataaagg tattctatga ctcagtagat 120
gtaaagcagg tggatgttcc atctttcagt ggtgcttttg gtatcttagc taaacacgt 179
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<210> 68

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 68

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caccaggtcg tgaggcttat ccagggtgatg tcttctacct tcactcacgt ctacttgaac 240
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aaacacaagc tggtgacgta tcagcttata ttccaactaa tgtcatttcc attactgatg 360
gcaaattctt ttggaaactg aattgttcta caagggtatt cgaccagcca tcaatgtagg 420
tttatctgta tctcgtgtag gtctgctgca caaaccaag ccatgaaaca ggttgccggg 480
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tcatgaaact ggaattagct

500

<210> 69

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 69

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gccttgtact caggagccag taagaataaa gtactcgacg ccgtcgagaa agatttggtc 180
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gttacaacag ctaaaccttt agatgagaat caacgaaaac aacttgaaag cctttaagag 480
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tgctcgtca 549

<210> 70

<211> 238

<212> DNA

<213> Ctenocephalides felis

<400> 70

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gcgtccacca gattgcgagt gtaacggtaa cgatcaaatt tggcataccg cctccactcg 120
gctggatccg acttgtagct cagcatcaga tgattgacca actcgatgct tacatcatct 180
tcagcaaattg cttcgtgcaa ctgttcaact agatctttta gagaagtaac accttggt 238

<210> 71

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 71

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aaggagacat ttgttccaat cacatgtgtc gactatccat acatgagaga ataagctgcc 120
aaatcccccc caaagcaccc acaccataac aataattcaa tggacactaa accaaagatg 180
cgtgttataa atactctgtt caagatctcg atcataaaat ttgcacacag tccggttcac 240
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tagtaacatt ttgccattaa aaatattaat ttacctagg aagcaatatc aagtattcat 420
tcaagtcaaa tttgaagaca tttattaaaa atcgatgttg ccattttatt aaatagatta 480
tgaaaattat ggggttatta 500

<210> 72
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 72
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 tcggaacatc cttatcgaat aatggatttt cgggtttact ttcacatcc accgagtcaa 120
 aacctatcac gaactgaaga aacttgtgta gttcaggatg cgattgtgga tcattcgtaa 180
 cttcaaataa tggcaaatag atatttgtaa gaatttcttg gaaattgttc atcagcttat 240
 ttaatttgaa aatatcgtat aatcgtggta tttgaataag ccagcgcaca ttatcactat 300
 aaacattaga ttctattgcc cattttgcaa gtttatccca ctcttcagga cttttaccat 360
 aaattgaaag tctcaattcg caattttgat atttgctttc ttctaaatcc gaactaactt 420
 cattgataat tcttgcaaaa tattttccgt tcaagtagtt atcggtttta agaaacttct 480
 ctcaatctgc tttcaccaat 500

<210> 73
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 73
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 agannatgta agaattaatg gtcgaacaga ccaaatttta aaacttctgc attttaaaat 120
 tatcttaatc caacatcgag gtcgcaatct attttgtcga tatgttctct taaaaataat 180
 tacgctgtta tcccttaagt aacttaatct tttaatcata atttatggat caattattca 240
 attatttatg ttttaataaa aaaaaagttt tataaatttt cctatcacc ccaataaaata 300
 tattaatata aataaattta ataataattt taaaattaat ctatatttat atataaaact 360
 ttaaagggtc ttctcgctct ttaataatat ttacgctttt taacataaaa attaaattct 420
 ataacaattt tattaagaca ggtaatatc attcaatcat tcattccagc ttcaattaaa 480
 aaactatgga ttatgctacc 500

<210> 74
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 74
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 actaatatct gccagtttg caacatcgaa aattgctttt acatagtcag ccctgacatt 180
 tttatattga aggtagtatg catgttccca gacgtcaatt ccaaatagtg gaaccagacc 240
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 tttattataa gccagccatc cccatcctga gccttgaaca cctacagctg ctgtagacaa 360

agcagttttc atcttatcca tagatccaaa atcacattca atcattttct gtagctggtc 420
acttggttta ccccccttcg gggaaagggt tttccaaaag atagaatgat tgatgtgcct 480
cctccattga atttcaatgc 500

<210> 75
<211> 348
<212> DNA
<213> Ctenocephalides felis

<400> 75
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attccaaaaa ggataactgg gactcgcatt ccgactcact acccaacgac tacgatttaa 120
ttagctaaag gccaaattaa agcttcaaga tgcggttcaa gccagtagaa aacccaaaat 180
gcccaaaatg cggcaaatca gtatatgccg ccgaagagcg tgttgccggt ggacttaagt 240
ggcacaaaat gtgtttcaaa tgcggtatgt gcagcaaatt gttggactcc accaactgca 300
ctgagcacga aggtgagttg ttctgcaaga actgccacgc ccgcaagt 348

<210> 76
<211> 451
<212> DNA
<213> Ctenocephalides felis

<400> 76
actatatata atatatatcg attttctata ttagtcaaatt atatgtgtta agcatttttt 60
tagagcattc ctatttaaaa ataaaatggt acgtcaaatt tgaaaattcc aagtaaaaaa 120
atagtttttt tctatatattg aattttgatc gttgtattac tacgaatgtt gccttgagat 180
gtgcgttcta ttttgtagaa taaatatcat tcgtaatgaa ttaattcgcg ttttaagccct 240
gtttttggcg cagtccgggc atataatgtc ggcgcggtct gtgatgaagc cacggccgac 300
tagagaagct ttgcatgacg cgcaggtgaa gcagtcattg tgccaatggc gatcttcaaa 360
cgagatgaag cgagtgccac caattcctgt aatgggtttg gtgcaagccg tgcatctctt 420
agcaacaat tcaccgaaca ttcagcacag t 451

<210> 77
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 77
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catatcttct gngggatcac tgccaaattc tattgaaact tgtaaattcca atctacctca 120
caataattct gcacaaacac cagaaaatcc ttacgtttat gatacagtaa cttctaatta 180
tagccaacca ccagtaactt catcaccata tgcaccagta gaacctaaaga gagcgagg 240
acatccatta aaaagtttca gtgttcgggc accaccaca tcatcaactc caaatactcc 300
taacaccaag cataatgctt cccaaggtat taatcgacca caaatgcat caccatataa 360
aaaaccttta atgattaata gactgcaagc aggaccatca gtttgtcatt catcagatga 420

agttcaacga ctggctccga gccctcaact gaggaattgc atcaagaaat ggctatttgg 480
aaggcttaat gaaagactaa 500

<210> 78
<211> 550
<212> DNA
<213> Ctenocephalides felis

<400> 78
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ctctggtcac ttctgctgct ggcaatgcga cgagtcactg accggccaac gctacgtact 120
ccgcgacgaa catccttact gcatcaagtg ctacgagagc gtcttttcca acacctgcga 180
ggaatgcagc aagatcattg gcattgattc caaggactta tcttacaaag aaaagcattg 240
gcatgaggca tgtttcttgt gcagtaaagt ccgcgtatct ctctgctgata aacagttcgg 300
aagtaaattg gacaaaatct actgtggaaa ctgctatgat gcccaattcg cttccagggtg 360
tgatggttgc ggcgaaatct tccgtgcggg tactaaaaaa atggagtaca aaactcgtca 420
atggcatgaa aagtgtttct gctgctgtgt gtgcaagact gtatcggaac caaaagcttt 480
attctcgtga gcaggaaatt attgccagct gtatgaggaa agttcgcacc agatcattaa 540
atgcataaga 550

<210> 79
<211> 550
<212> DNA
<213> Ctenocephalides felis

<400> 79
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gagtttcctt gcgacgattg ggcacacac gacgaagatg cagatgatgt tacagtttgg 180
gaagataatt gggatgatga taatgttaaa gatgacttca gccagcaatt aaggtctcaa 240
atgagcaatc cttaaaggagc atctaaaaaa agttaagact atgtatatat tagaatataa 300
tgtaatttca aaaaacataa ttaataaact gattttttta atnttaaaaa aaaaaaaaaa 360
aaaaaaaaaa aaccctnngg ggggggcccc gccccaattc nccctatnng gagtcgnttc 420
aattcactgn ccngtnttcc acgtcngnac tgggaaaccc tgcgttaccc acttaatccc 480
ttgagcacat ccccttttcc cagtgggnaa taggaaaagg ccccccgnct cccttccaca 540
ttgencacct 550

<210> 80
<211> 549
<212> DNA
<213> Ctenocephalides felis

<400> 80
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atagattttt caaatcagtt tgacgttggc gaaaagcaga aaacaaaaat agacgacatg 120

aatgacatga tgtcgacaaa aaacatcatc gccgataagg ataaaacgaa aatcgacagc 180
aaaggtcttg atgatgtaag catggatgat gacgatgacg acgatgtgat atcagcaggc 240
gacgtttcga aaagtaaatc agaacaatca ctggctcgaa aaccaatact gaccacaaat 300
gattcgccaa atatgcaagt gcattgtatc ttcaatggaa caacatataa gccaggacat 360
tcgttagata aacactgtga aggcattgtgc aaatgttccg aagaaggtct ttggagatgt 420
gagcccagggt gtgaagctct tatgtcacia gactcctgat ggcaccctaa atgatgtcac 480
caccaaaaat gaaaggggtg ccgcgaaatg gccaccaaac aannatgctg cctgtctggt 540
tggcancgt 549

<210> 81

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 81

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ttgccattcc aacgttttgt gagagaaatt gcccaggatt tcaagactga tctacgtttc 120
cagtcagctg ctatttgtgc tctacaggaa gccagtggag cttatctcgt tggcttattt 180
gaagatacaa atttgtgctg cattcatgcc aagagggtaa caattatgcc taaagatata 240
cagtttagcgc ggcgaattcg tgggtgaacgt gcttaaaatt cgggttatca agaagccaga 300
tatcccatat gcacatctcg atatttacct attataaata tacacatata tgtggaaatc 360
gtgacattta tgtttaagca ttcaacttta taacaaatca tctttacatc ttangacgta 420
gtcaaaaatt tggtaacaat attttgcatt tgaatatgaa attttagctt taatcatatt 480
tatattatca tttttgtgta 500

<210> 82

<211> 238

<212> DNA

<213> Ctenocephalides felis

<400> 82

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aataaaaaaca ttatataaca caaacaatgc agattattcg gttaacgaaa ttataagtga 120
aaaaaagtca ttaggaaaca caaaaattaa acataaaatc aaacctagca ttagcaaaaa 180
tgccgaaaaa aatattaaaa aaaatactga cattattcca gaaatgttaa aatctggt 238

<210> 83

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 83

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caaagaatta tcagtattat aattaactgc attatctata acaaaaaatat cttatattcc 120
ataagaattt taaaatagat ttcattactt ttcaaataat tagttattag ttaaaatatt 180

ttctagattt atttttaaata tattttttgtg tttaaattcaa taacatcaaa atattaatgt 240
 tttctcaciaa tctcgtaaca gaataattat taattaaata ttcttaaatt aattctttgc 300
 agttacctat agatcaaaaat ggaggtgaag gcaaattgtt atatataagac actgagggaa 360
 catttcgacc tgacagggtta ttggctgttg ctgccgttac aaattatctg gtagcgatgt 420
 gttagataat attgcatatg cacgagcata taatacagat catcaaacac aacttttaat 480
 atatgctctg caatgatgtc 500

<210> 84

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 84

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 tattgtcgac tgtcttgaca acaattttct ctggtgcata ttgactaaca tcaaacctca 120
 atttcagaac tttgccatcg gcgtcctcac ggatcaatgg tgaattgagg tcgtccaacc 180
 acgtgctgac ttgtctgcct ggtgcgcca agtttgagct ggacagcctt tggtcagtgg 240
 aagtttggtg tgttggtgctg cttgtgcttt tgaagaagtt attactttct ctattcataa 300
 gctcggatct gaatttagac atttcctctt ccattttctt catttcggca tcaaattctt 360
 ccctgatgct gctgaattct gtatcaatta cactgaaatc tccaagcttg attgggatat 420
 cgngttttaa tccactatca nncattttta taaaanttta tttaanattc acatcacaca 480
 naattaatta attggtaaat 500

<210> 85

<211> 413

<212> DNA

<213> Ctenocephalides felis

<400> 85

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 tagcatccaa ccatttaata acatcattgc atttgtccat aattacagtc ttatcggttt 120
 cggcaagttt atccttcaat ttttcatctt ccattggtga tttcatgttg aagcaagtaa 180
 gattctaacg agttcttagc agcaattgta gacttttggt tctcatcttc atttctgtat 240
 ttctcagcat cgtaaacat cttttcaatg tcttcttgct aagacgacct ttgtcatttg 300
 taatggtgat tttattttcc ttgntggttg atttttcaat tgctgtgaca ttaagaatac 360
 cgtttagcatc aatatcgaaa gttacctcaa tttgtgggac accacgaggt gca 413

<210> 86

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 86

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 accagataga cctaacaaaa tgtatatcat atataagtat aagtttttga taaagatttg 120

tgatactata taactaattt atttaattta ggaagaggaa tttatgaaaa tattgaaaca 180
 aaaaactatt ttttattcaa gcataatatt taattattaa ttagatcgat aattaacaaa 240
 caatcaaaat agttccaatt caaatagaac taacctctta tctgcagtgt ctctgcacat 300
 tttaaaagat cttgtagccc ttcttgtgta acatttactt cccccttata catgaaatca 360
 accaacgctt gtaattccca aaacctaaca tctttcaaaa ttataattgg atgctggcaa 420
 ggattttctc ccagtagact ttcaaaaaat ccagaacaag cggccaaaac taacctatga 480
 caagttagtg acgccttcca 500

<210> 87

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 87

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 aaatgaagac aattatagtt ttcgcactaa ttaccattgc agcttgcaaa gggcaatcta 120
 cttgccctaa ctttaacgat acacaacatg aactggcag aatcgctctt atgaagaaat 180
 agttgatttg ccacagaaac cagaagtttt acttattgat gtctgtcaac cggaggaatt 240
 ggagcaggaa ggaaaaattc cgacggctat aaacattcca ttacgtgaat tggaaaatgc 300
 tctcaagaac atgtctcctg aagaattcaa aaccaaattc ggaagagata aaccaacatt 360
 cgatactgaa atcattttta gttgccgttc cggaaaacga gcaaaggaag ctatggaaac 420
 agcattggga ttgtnataca gaaatcaaga tctacgaagg tagcttttta gaatgggcac 480
 aagcagaaga acagtgaatt gcaggtaatc aattttttat gtcacattta ttacaattga 540
 ccaactagtt 550

<210> 88

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 88

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 acacaaaacg ctggtgatgt cgagacattc gccttccaag ctgaaattgc tcagcttatg 120
 tctttaatta ttaatacatt ctactotaac aaagaaatct tcttgcgaga attgatctca 180
 aattcatcag atgcttttga taaaatccgc tatgaatccc ttactgatgc atctcgcttg 240
 gacagcggca aagatctcca catcaagatc attcctaata aaagtgaggg cacgctcacc 300
 attattgaca caggcatttg catgacgaaa gctgatcttg tgaacaattt gggtacaatt 360
 gcgaagtctg gaactaaagc cttcatggaa gccttacaag ctggagccga tattagtatg 420
 attggtcaat ttggtgtggt tctactcggc tattcgtgtg ataaagtcac ggccacatcta 480
 agcacaatga tgatgaacaa tcctttggaa tcttcgcgag aggtccttac agtaagactg 540
 cacttgacc 549

<210> 89

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 89

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gggccacagc ctggtccaca agtacgagga catgcccggc ggaggcggag gcgcaaggca 180
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attcaagtga ctgattagt actgaacgat gttataaatg acaacgtgag tgcgaaaaca 480
aaacgtcttg acgaagaaat atcgttaaag taaaaaaaaa acaaacaaat gaaataacca 540
ggggtaaaa 549
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<210> 90

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 90

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acaagttccc gaccggtcgc ttgcgaaaac ggattctaata taaaatttag tgttttaaag 60
caagtgttac gtgttcttgt gagtgtttat tgtgtgcaaa aatcgcgccg agatgtccga 120
caacaaagga gagaacgcca catcggaatc accgaagggc aaaccgggca gacgaaacag 180
agctttacaa agaatgaaag aagagggtga agcactaatt aagtctctag gtggaacccc 240
tgaaattgaa ggcagaaggc gtactaggtc ttactaaaaa acgccagcaa cccccccagt 300
tacgccccca actcccacga aaaaggcaaa atctacacca gcacccaaag gcacaaaggg 360
acgcgggagg ggaagaaaaa gtgaaaaggt ggaggaggcc gaagaaaagc aagaatcaac 420
agaacaagaa gacgaagtag acgaatccaa tgcacttact aaattcacct ccgaagacaa 480
ggccaagtag aacaaaatgt aaaacagaag accttcagaa gaaccgcaaa ctgatgactg 540
ttaatccga 549
```

<210> 91

<211> 251

<212> DNA

<213> Ctenocephalides felis

<400> 91

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actcttccca cagtgaagaa aaaagtttaa gttctattca tcggtcgtct aaggaaacca 60
ctcatcagca gattgaaact caatctaata cacgaaataa acaccaagta tcatcatcta 120
acgctaccta cggttattgaa cgccgcgaga aaaccgttcg acgcgataat ctgttaactg 180
gcggtgaatt ttatggtcaa aaagattcaa ggtatggtaa tttttctaata tgtgaacaaa 240
gtctaagaag t 251
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<210> 92

<211> 375

<212> DNA

<213> Ctenocephalides felis

<400> 92

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actccctttg cgccatgaag atttcaggcg catttcgagt atcaagtccg ccttccatgt 60
ccagaaggtc ctggtgttcg tcctgttcgt ctgattcgga tgagtcgtcc agttcgtctc 120
cgtctaataa ggacggacaa cggaacatat gctcaccgtc gcacatgcat tgctgagccg 180
cctggtagtc gcggtgaag gctgcggtgt tctcgaagtt ctcggtgcaa ccatgctctt 240
ctgttaatcc aacaggacag ggattaggtg gattacaata agcgggcaaa ttatccgttt 300
ttacttgctg atgattcatt gcacttncat ctggtttgag cctttgttgg ccttcaccag 360
cgcttncact tacgt 375
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<210> 93

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 93

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gataaagcat ggatacctat gaaggattgc ttgctttata gtgagaaaga tccaaatttc 120
agtataaag gaaaacgctc tgatttcacg gaatcactta gggagtttagc tatatatgtg 180
aaaaatcttg agcaaaaatt tggaaaattt tgtcatgcac cattcaaaac tccatatact 240
aatgatcaag cagctattta tagtataatg ttaccttcac ataaattcaa atcagatatt 300
gcaaataaaa aaataataac aaaacaaaaa gtttgtgaca taacggataa actactagag 360
gacacaaaag gtaacatgaa aataaataat tcgtagatg aggatagtta tattgaagga 420
tatgatactg aagatgagga agcactaaaa gatgtatcaa atgaatctgt gatatgtaat 480
gatatgaaaa ttaaacaaac ccttgcggtc cgtgttagaa tgagagnggt aaataattca 540
caggaaaata 550
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<210> 94

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 94

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agcggcacac gatcgtatct attcgcgaag ttttgacaca ttcagcagat ttttggatac 120
atacagcaat tcaggagtta tccgctgagg aaatcaattt gagcgcaatt agacgatcag 180
atcgtatacg aatcaaaaat caattaattg gcagtgattt tgtcaggcca ttttagttaa 240
cggcgcgcgt ttgttatact ttttaacttg aaagttttct ccatcgatag ttttcgttaa 300
tcaacgtgag gaaaagttct aatcaagatg gcagtagcag cagcacaaaa gaaccgcgaa 360
atgttcgcta tcaagaaatc ctacagtatc gagaacgggt atccatccag gcgccggtcg 420
ctggtcgacg acgcgcgttt cgagaccctc gtagtcaaac agaccaaaca gtctgtcttg 480
aagaagccgc cagagagcac gattcgagtc tcgatggcaa gaccatggac agatgtatat 540
gatgacaag 549
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<210> 95
 <211> 240
 <212> DNA
 <213> Ctenocephalides felis

<400> 95
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 tcacttcgtc atttttacatg tagaagtttt atcagctggt ttccaagtaa ctccattgtc 180
 tcctgatgaa tggatcactg tgatgaaatt ctctattcct gttatattgc ttgatgaagt 240

<210> 96
 <211> 431
 <212> DNA
 <213> Ctenocephalides felis

<400> 96
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 tttggtttca atttcctggc ggacggcgat ggcagcagaa cgacggtcta gtccttggtt 120
 agaaacattg aatggattca ttttttcagc caatacaatc aaggcggttt cggtagcttc 180
 accgactttt tcgaaagctt gtttgaattc gttgaaatca atagcggaat cattgcacat 240
 gatacagatt gttcctaatt catgcagggt gtcaaattcg ctggccttaa ctttagcacc 300
 tttcaagtat acatcaccaa ttgggtcata agtggatcca gtgatttcga attcagtga 360
 actgctatcg ctaccttcaa ttttgtcaaa gacaaacata cgagatcaga catctgatta 420
 gtggtcaaag t 431

<210> 97
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 97
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 aaaaatgcga tgaaagatct ggcgactatg tagaaaaata atttgaaata caagctttcc 180
 gatggtatac acattttattg caataaaaaat gcctcaaccc tgaaaaaaat gtgggaacct 240
 tactttttgc atgaccctcg tatgatttca aaaaattgag aatgtctatc gatttggttac 300
 ttagacgtgt cctttgttta caatatttcc caaaatagaa aatactctct tacttgcgac 360
 cgaacttgat tggtgttaaa goctgatata ctaattctat atacactggt ataaaacct 420
 aattaatata tacattagac aaaggataac aaaaaacttt tctggaagcc atagcagact 480
 gataagattc caaatgctga 500

<210> 98
 <211> 350

<212> DNA

<213> Ctenocephalides felis

<400> 98

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acccgaaaat acacgacgtt aaaatatgaa ataagaaaaa aaaactctac taatactacc 180
aaccaattac tctataacta tttattatac aacaatccag ctggtcagat atgaatagca 240
tgcctatgtt tcaactatgt gaaaaaaaagt aagtccttgt taaactaaca aatccgattc 300
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<210> 99

<211> 200

<212> DNA

<213> Ctenocephalides felis

<400> 99

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gtcgtctgtg ttgaagaagg tgcgctatt tataacaaca tgaaacaatt catccgatac 120
ttgatttctt ccaacgttgg tgagggtgtt tcaatcttct tgactgcggc tcttggtctt 180
cctgaagctt taatccctgt 200
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<210> 100

<211> 273

<212> DNA

<213> Ctenocephalides felis

<400> 100

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taaagaagca aagaaaattc tcagtgatga atctctatat gaagaattgg catcggatcc 180
gaacaactat caccatagac aagtttttaa atttataaat ttattagaga aaaagggaca 240
tattaataat accatatcat taaagttaaa agt 273
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<210> 101

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 101

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tgcatggaca ttacgtaaac attgacggat agttgtttta attaatgac acctaataca 180
tatttgacca gtattgcaaa tttttgagtc acaaagctat tgatttagat ttttatatat 240
ccttataaaa gctatttcta tgggtataatt tattttaattt aaaaaaatt tgcaatatta 300
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gcttgtatatt taaaaagctg attaaaattt attgtgaagt atctaattta ttaaaaaaaa 360
tctaataataa tgaataatat agaaatgaat gaaaaccgac tcgagtgcag tcaacattac 420
tgataatgtg atttgatgca ttttgcttta ttaaaggcta aattagttca aaaaggccag 480
tgtttaattt aatatttatc acttatTTaa ttcaaataat taatcactcc agttgtatta 540
taaataatgt 550

<210> 102

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 102

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tacagccgaa cgaagtttga tttgttaatt agtgtttttg tgcacattga ttggattgaa 180
aagaacgccg ccaagagcgt aagaagcaat catggaggac gcacatgcga aatccgtgga 240
cgaagtctta ggatatttca gtacagatcc tgaaagggga ttgtctactg atcaaattaa 300
aaggaatcaa gctaaatatg gacctaataa acttccaacg gaagagggta aatccatctg 360
gcaattagta cttgaacaat tcgatgatct tctagttaaa attttactgt tagctgctat 420
tatatctttc gttctcgccc tttttgaaga gcacgaagat tctttcactg cttcgttgaa 480
cctttcgtca ttntactgat ttgatcgcta cgctatgncg gtgttggcan gaaagaacgc 540
tgaatcgcta 550

<210> 103

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 103

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gagcctttat catgccttct gatgccaaaa aacgtgaaca gcaacgcaag aaggagcaag 120
cgaaagccag acaggctggc aaaaaagttg caactaaaaa tggatgaaga aatgacaaag 180
aacaatctcc agcccccaac caaactaatg gagtgaaaag taatggaact acagagctct 240
ctgcagaaga aattctttgt gcgaaactgg aagcagaagc aaaattgaat tctgatgcca 300
ggtcttgac aggatcttta gctgtccatc cacgctcaag ggatattaaa atagctaatt 360
tttctgtaac tttctatggt tgtgaattgc ttcaagacac tcttttagaa ttaaattgtg 420
ggaggagatt ggtcttttag gccttaattg aagcggcaaa tcatcactat tgctgtcttg 480
gtatcgtgaa gtaccaattc tgacatatag acatctttca ttaactagag aaatgctgta 540
ggntaattg 549

<210> 104

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 104

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tttcaaaatc gttccatcat acagaagtgc accgcctcct tgtgaggtaa gcgccgcac 120
tgatgcaatg cgtttattcc ggattaggcc tacacctgna ttagtatttg ngcgtgcca 180
gtttgactat gatccttttg aagatgattt aataccatgt gctcaagctg gtatttcctt 240
caaagtggg gatataattgc agattatcaa taaggatgac tatcactggg ggcaagcaag 300
aaaggatgct gtcgaagggt ctgctggatt aataccttct cctgaacttc aagagtggcg 360
aatagcaaat gcggctcttg aaaagaataa gaacgaacaa gttaattgct ctatatttg 420
aaaaaagaat taaaaatgcc gagataaata tcttgcaaaa catatgctgt tttgatggat 480
ggatcttgnt acctatgagg                                     500
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<210> 105

<211> 248

<212> DNA

<213> Ctenocephalides felis

<400> 105

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taccttcttc gatagtaaca tcaacaagtc ctttaacaat ttgtggtttt tcgccttttt 120
ctggttcagg atccggtaaa tctaagatcg ttacttcttg tgatgttgcc tcgccctttt 180
cattctttac aaccaatttg taagtacctg ccnctncnc ttncnnanc annngtgcca 240
tnantcan                                             248
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<210> 106

<211> 494

<212> DNA

<213> Ctenocephalides felis

<400> 106

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atagattagg tttcctcact ttctgtccca ctaacttggg aactactgtc cgtgcctctg 120
tgcacatcaa ggtccctaag ttggctgcta accgcgccaa gttggaagaa gttgctggac 180
gttacaatct ccaagtctgt ggaactcgtg gtgaacacac tgaagctgaa ggtggtgtct 240
acgatattct caacaagagg cgcattggcc tgactgaata ccaagctgtc aaggagatgc 300
acgatggcat tgctgaactc attaatgagg agaaagaaat gtaaaccattt cacttttatt 360
atcagactat tttttgtgat caaataaatg gtcattgat agatattggc aaagattcta 420
tcagtatttc tattttaaat aataatttat attatattgn tacaactttt ttttaataatt 480
taatttttat ttgt                                             494
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<210> 107

<211> 445

<212> DNA

<213> Ctenocephalides felis

<400> 107

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gaaagaccta atggcagcat aggttgacta tcgcagtaaa ctctagggca atatccgaag 120
tctccagatt ggtatttttc tatcatttga gctatacctc tatttggttaa aatatactg 180
gcggtgaatta gaccatataa catctctgca gcctgttcta ttgcatctga ctgatttgga 240
ttatcatcta tttcatcatc aggttctaaa tctaatatca tatccaaggc ttgtctatat 300
cgtggaattt gctcattaag gcctgttaga ttgaatttat cctgtatata gtcttcatcc 360
acctcgcaaa agaattcatt tcctcgtaga tcacaaaacc aagatatcca tgagacctcc 420
tcagaactgc tcattttcct tttgg 445

<210> 108

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 108

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tttctatcac ttaccgaggc atttttcgca taaaacagag tgtgtccttt cagcctgaaa 120
tategccttc tccatcgctg taaggaccag gtctgcttca tgagaaatcc ctctctgggt 180
gcggcctgcc ggaaattaac agaaatcctt gtaatacaga aatgtgacaa gaatatttaa 240
attggagttg acagtatcgt aatgaaatat cttgggcatg aaaagcattc gaagatagtc 300
tataatgggt ttaattcaat cagtttcaaa aaataagaat cttgatatcg atataaaatg 360
acaaaagctc tactaagatt ttttcttcag tataaaaaaa taatataaaa ttgttagaat 420
actttacata tatcgcataa ttcttaacac aatataaaaa tgaataatcc aaggnaacga 480
acgtatttaa tctcttacac 500

<210> 109

<211> 343

<212> DNA

<213> Ctenocephalides felis

<400> 109

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ttgcaaattg ntggtaattc actcgcgttt gtttatttat aattatatct ggntttcttc 120
tcgatttgct atttaacctn tagcagcctt ttgcactttt gctgntggta ataatttcct 180
atccgtaaca acacaatggg aaactgggaa taatccgtcc ttaagcacac atacgcaatc 240
actgtgcatt tcagttctac taatttggtc taccaaactg tttgatacta cactgatgaa 300
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<210> 110

<211> 491

<212> DNA

<213> Ctenocephalides felis

<400> 110

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aagagccgtc aacgctcgca gttcttcttc tatcaatttc tttctagcag ctattgcttc 180
aaccgagctt atactttccc ttttttcaca ctccgctt ttccttgaac gaaaactgcg 240
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aaattcctcc tgaggcggtg caccaggtgt agaccaggtt gaccaggatt tgacgtcctc 360
ctcttcgtct ccggaatctt ccacaacttc cgcctttttt agcttttctc ggacactcct 420
cgtgtaatcg gacaagtccg gacttgctcg accgcaaato gaaccaaacac acagacaact 480
cgcctttcaa c 491

<210> 111

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 111

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ctgataatatt gatgtgcata tgtctaataga tcatttttga ccgccaaatg gcacattttt 120
ttactttttc ctccatatct ccaaagtcgt tggacctttc caaaattttg aacagttctt 180
catttagtca atacaaataa aatgtttttt aaattattca aatcggacgc tccgttctct 240
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acctttgccca aaaactaatc agcacgtctt cttatcaata tgaatcgaat gttttttaaa 360
ttattcaaat cggttgattc gtgttcccgga aatcgtcgac gaaaatttgt atccgcacat 420
acatacatat acacacatat acacacacac acacacacat ccatncattt ttctaaggat 480
gccaaaatgt cagaaacctt 500

<210> 112

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 112

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aacaacaggg tcaacaaaat atgtattttt tctttctgat acatcttcta agaaattcat 120
taatttagct gctaagccaa gtctacgaaa atctggggaa acagttaggg ctgtgacatg 180
tccatgccaa ttttctccat gaccttctgc tttgcccatt atatatccca ttatttctcc 240
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attgcaagta aacggtctta atgtagtcat attaatnta ttgcaaaaga tatcagaagg 420
aatttaatta acaaaagtca cgcctttaat gaagtaaaat attcagagaa aaaataaac 480
gagttactaa tatttctact 500

<210> 113

<211> 256

<212> DNA

<213> Ctenocephalides felis

<400> 113

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acagatnttg acttaccocct gcctgtgctt tcaaatagaa ctttatcatt taagcctaata 120
cttaattctg gcattcctga tagatatact ctcatcttga tagcaccgac aatttcactt 180
cttagaacat tgccatttac atttgccaaa agatttacgg attctattac atctaaaaat 240
acttcatttt ttcggt 256

<210> 114

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 114

ataaggataa aaagaaaagg aaaaaggaga agaaagagaa gaaattgaaa aaattaaaga 60
aaaaattgaa gaaagaaaaa ctcaagaata agaaaacaga agattcagac aaaaagaata 120
aagatacgaa aagctcaca aatgtggtat cctcatcctc ttcatcatct tcggaaagct 180
ctgattcaga tgatgagaaa tcatgtatcg gtccagtgcg aaaacaaagt gctgggtctta 240
gtcataagga ctttggacat gcattgttac ctggtgaagg agctgctatg gctgcatttg 300
ttgctgaggg aaaacgtata cctagacgtg gtgaaattgg tctcacgtct gatgaaatcg 360
cgcagtatga aagcgtcggt tatgttatga gtggaagcag gcatcgctcg atggaagctg 420
tcgtatccgt aaagaaaatc aaattttattc cgcggatgaa aaacgtgctc ttgctatgtt 480
cagtaaagaa gaaagacaaa acgtgagcat aggatcttag ncagttaaag agatattaat 540
tcaagtatcc 550

<210> 115

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 115

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gatccagaag ccaaatacagg agtagtgca gcgcgcaatt caccagtcatt ttgaccaa 120
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ctttcgtgtt cagattcgcg gttcttgaat tgagcagaaa ctacttcaac caatctttca 480
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tcaagcttg 549

<210> 116

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 116

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tttacaatct gagttaagta ttagccaaaa aaatgaagga caatatacaa caaaattagc 120
tacagctttg gaaacagttg aaaaaaatat ggacacggagc aataaaaggg caatagatgc 180
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atatttgaac cttctgatga caatttctgc gaaaatgaag atgaagatgc cggcctgact 480
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ttatatgct 549

<210> 117

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 117

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tacagaaact aatgttggtg atatgtttgt tgttcgaaat gctggtaatt tggtagctca 180
ttcccaacat tttttggatg aatatataag tgctgaacct gctgctttag agttagggtg 240
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tcttagtgat tataaaacac ctcttatttt tactgctgag actcctttaa gaaaatttgt 480
ggttatatag atcctgaaga tagttttctg tgaagacaaa tatcacaggt aaatctctgc 540
acaactcaa 549

<210> 118

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 118

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agaatttgtg aaaaaacagg agcataaata tgctttcaaa cattcggatt caaataaaaa 120
ttgccgtgt acgagaatta aaagatctgc gttatttttc ttcttctaca acaaatttcg 180
ctgaacacaa atgtcgggta ttggtggctg gaggcggctc tggaggatgc accatggcat 240
caaaactttg ttcacatttg cgacaagatg atgtcattgt attagagcct agtgatgtcc 300
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gaaggccaat gtcttcagtt ttaccaaga aggtctcgctg gctaaaagat tcggcgaaaa 420
cattcaaacc gatcgaaaat tcagttttta catcatctgg tgacaagata acatacacta 480
tctcgtgtgc tgtggttgaa acttnttacg caagatcctg gttgtaaaaag ctttgctcac 540

caaatggca

549

<210> 119

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 119

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ttgactgtca ttaataatgg gatatgactt tcgagggttat tattgagaaa tgaaaaacgta 120
gcatttactt atagtacgtt atatgggttt tgattgggtt aaataaacta aataaaatga 180
agtgcacaaa taacgatacg aatggccatt caaaaaggca tttggaagcg aagatctccg 240
aagctgaaga ggtaatagaa aaatctttat ctcaatgtga ggcagatgaa atttttatgt 300
ctttcaatgg gggcaaggat tgactgtttt tattacatat actccaaaga gtttataaac 360
ttaaatatgg ttctgatgca cctccattac tctgtttata tgtgagacct aatgatcctt 420
ttcctgagat agaaagtttt gtgctgagtg caaaaatctg tccccataaa tctaatacat 480
ttnctcttcc ttaaaactgc tttaaaagat ctgcagtgcg nacctcactc aaactagttc 540
atggatncc 549

<210> 120

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 120

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ttattgccat atttgtgcaa gaattagatc catcgcaggt gtgtcccaag ttatctttat 120
gtccaaataa agaagttgaa gtgtttgaac aagaagatac cagagacaaa ccaacttgtc 180
ctatgtgtct aatggctatg tttgaattag aagagaagct taaggaggat aaaaccaagg 240
cagctgttga gcaagcacta tctggattat gcaatcatct ttctgatcat ctgaaacctg 300
cttgcttaac cttagtaaat acttattata atcaattagt tgaaatgctg atggctgatt 360
ttaaaccaca agaaatttgc gtgtacctaa gattatgcca tgataagaat cccgacttaa 420
gtgaattgga tattcttctg cagtaccaa taataagacc catgattaat gcaaagaaa 480
tattggacac cacaattaat ggcaaaccat caggtgtgtc aaacaactta ttctgaaaat 540
tttgccaac 549

<210> 121

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 121

gcataatgat aatccacatg tagaaaaaca aattgttgag ttaatatatg atgccgtact 60
atgtgaaaac ttgtcaaaaa attataaaaa taccgcattg tggcaagaaa tttttgtttt 120
gccattctac tccctatata aggagaattt gataaaccta atagacattt tacatataga 180

tacaagatat gcaattgaaa ataaattaca ccaagcagcc agggcaaagg cactgtattg 240
gactcatgca ctttattatt ttgagaagga gttaaagtac tcgtcaaatt ctccaacgtc 300
actaagtttt gatgtagaaa aattatataa aagggttctt tgtaaagaga attcagatac 360
aaccgatctt ggctggatac atatcacaca gatattcaaa aatttaccg cagaatgcat 420
atctgtaaaa tttgatggca aaatgattca tggataagtt ccgctggaac caactgtgcc 480
gccagatgta tgtcagagtc cgaattacgc gatgattctg tactcncgt cgagataatg 540
atgtctctg 549

<210> 122

<211> 339

<212> DNA

<213> Ctenocephalides felis

<400> 122

accatggctg atacttcaat tccggcatca ggatgggtatt ttccatcttt catcactcca 60
agtttcttgn aaacgcaatt gatcatgcat tttcctgctt ttgaatctgg tatgttcttc 120
tgcaataatt tttcgatata atctgaagat gctcctgttt ctacagcaca atctttgcct 180
atctgcaaaa gtttttctt tgccttcttct ttggtatagc tctgccgcag aatataaagc 240
gaccagtgtt ccaatcacca agaatatctt cattttgatt ttcttctact tcaaatttat 300
aaaacaattt gnttataatt ttcaaagtga gtatttact 339

<210> 123

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 123

cccgcacacc acacatacat caattttttc tgtgggtgcc aaatattcag aaaactcaaa 60
aacgtaaaga tatataaaat ttttcatttt cgattttttg cgattactat aacttgcccc 120
atgggaagtt aataatattg tgtagttatt tatgatcaat actaatatta tgtgtagtaa 180
tccataatca agacttttta tcatttttaa ctttccgtgg ggcaagttat agttatcgca 240
aaataatcga aaatgaaaat ttgatatac tttacgtttc aaaattttct gaatattttg 300
gtatacctta gaaaaaatgg atgtatgtgt gtatatgtgt atgtgtattt ttttatagag 360
gtgcgaaaaa aaatctccat aagcagacaa cgctagacgg tagtgtgaag atttttgcga 420
cgcttcttc ttactactgg ccctttctnc ggtttattct tcaaagggtc tgtgcatatg 480
ctgctaagct gccagtttct 500

<210> 124

<211> 489

<212> DNA

<213> Ctenocephalides felis

<400> 124

acttaaacta tgagctattc tgtaactcat tttttttatc tttattttgt aaaccatctt 60
gntcataaaa tttgctaact acgcatttac ttttttttgg acctatatat tttatctaaa 120

tactattcct aactctattc tatctgggcg tgcattaatt gtataaaaga gaaaaaaaaa 180
acagtctaaa caagtaattt ctattatata ataaatctcg caaaagaata aagaaacaac 240
agatgtaata cataataatt atatcaaaaa tagtcttact gttattataa aacatttgta 300
aagcgaatcg ggcatgaat ttaaaaaaaaa gaacaattat taaataatct cactatttaa 360
cctatgtgtt atacggtaac tcgccatttt tttttctcgc tttactttca ctttgcaaac 420
tatctctttc ctaaatccta gcgacttatg cattcttcgc tttcgcttat ttcattttatt 480
acatctagt 489

<210> 125

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 125

gattagtttg tagttaataa ttattaaaaat gaacgactac ttatcttctc ctttaggatac 60
agattctagt aatttagatg tgccagctcc tattaaaact ggaaagactg catatcaact 120
ttctccgtat cttaaattata atcctgttta cctgcctgca agccaaccg aatttatttt 180
ccctgaaggg gctagtagac aaaggggtcg ttttgaatta gccttttcgc aaattggatc 240
atcatgtatg ataggagctg ctttgggagg catggctggg acatacaatg gtctgaaggc 300
tacaacattg ttgggtcaaa ctggaaagct gcgaagaaca caaatgttaa atcacattat 360
gaaacaagggt tcagctacgg caaatacact aggaacgata gcagttatgt attctggact 420
tggtgtgcta ctgcatggct tcgaggagaa gatgacgaaa taaatacttt aggtgctgca 480
cagencagga cacttataaa tcacagctga cttaggaatg tncattgggtg gaggagtaga 540
tttctatac 549

<210> 126

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 126

ccggataaaa gatattttatt acaatggatg attcctcgcc agattttccat ttcaccacga 60
tcgattattg tgtttttggc ctggccctgt tcgtttcggc cctgacaggg ttgtactacg 120
gatgtaggaa atcaggggat gaatctgatg aaaacaatca gcagaacagc aataaaagaa 180
cagaagagtt tctaaatgga aactccaatt ttaggcctct gccagtggct gcctctcttg 240
tcgccagtta tgtgtctggt gtcacgattt tgggaacacc ttcggagata tttcgggtacg 300
gaaccaata ttggataata gtgttgccaa tcgctctgat gagcctagtg gtggccaatg 360
tttttcttcc gatgttctgc aagttgcaag ttcagagtcc ctatgagtat ttagaaatga 420
gatttaatcc gtggtgagga cgatagcatc cgatcatggt gtcataagac agctttgttc 480
taccaattgt atatatgtgc cagctttagc ttttaaatcaa gtcaccggtg cgacgtcatg 540
gattgtacc 549

<210> 127

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 127

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agattttaag gaacctttac aacctgcgaa aactgtcaat attcagatcg acgcggtatt 60
cagtaaagtt ttagtacctt atccatcaag cataattcaa ctagagcgtc aacttgtact 120
ctatcatgga aatcattact tttactctgc ctatcgactt attaaacaac aaacaactgt 180
acaacttgct tctaagaaca tcgaaagctt ctctaaactg aaaccatttt cacaaagtga 240
taccacaata acttatggct catatgaaaa cataccagca tttactcatg acaaaatgac 300
gattcattat gagaatcata caccgttttt aacagttaca aaattggaaa gaacaattga 360
agtatcacat tggggaaata ttgcggttga agaaacaatt gacatggtgc attctggtgc 420
attactgaaa ggtcgtttcc agatatgaat tcaaaaagat tcacgaacgg ttggaagtgt 480
aaatcatata aaacttgctt ccagcttctg attggggtac tccgatcta tggaatattc 540
tcatacata                                     549

```

<210> 128

<211> 307

<212> DNA

<213> Ctenocephalides felis

<400> 128

```

accattgtgg atgaggcaaa tcccatatac catgatgaag tttgcttgtt tcgaaagaac 60
agttgaattg ttatacactc atgtggttcc caaaccaga gcagagtga ctaaaggtga 120
acaattggtt gtcaccttg ctgctggtta cattgccggt gtattctgtg cagtagtttc 180
tcatactgca gacacagttg tttccaagct aaatcaagac aaaggagcaa cagccattga 240
cgctgccaaa aaacttggtt ttgctggttt atggaaggga ttaggaccta ggatcatcat 300
gattggt                                     307

```

<210> 129

<211> 440

<212> DNA

<213> Ctenocephalides felis

<400> 129

```

nctcctggcc aagaaacaag attggattgc attncatgca aatgcgccag cgatggaaca 60
gggtactttt gcacccgcca agcatgtgct ccagttcacc atcataaacg atcagctgaa 120
gaagtgaag aagtaaccac aacttctttg gcaacgactc catgcactcc tggagagaag 180
actcaaattg attgtaatac ttgcacctgt gccagggatg gctctggata cgctgcact 240
cgcaaatgt gtttgccagc caccacgat cgtcgacgta gagaagctga aactgaagaa 300
gtcaaagaag tcacaactga tactttggca accactccat gcaaagcagg agagcaaaga 360
caagtggact gcaatacctg cacctgtgcc gcggatggaa ctggatatca atgcacccgn 420
caagcttggt agtttgcatg                                     440

```

<210> 130

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 130

```
acatatgatg ctacatccat tttgacagca tttcgctgga ccccgacatt gagcgtctgt 60
atggcattct cgagaacatc tatctttctc atgtccagca acaaaactga ctggacaaga 120
tcctggtttg ttttctaattg aaataattat taaaatagat ttattcttct acatttattc 180
taaataaaaa tattttttatt ttaataaaga catagcctat ggaacgaaac ttaccgagcc 240
gacattctcc aatgaaaact gttctaccgg aaacttcacg tcgttgcaag tctattccgc 300
atgaacttcc ttcgtgacag cggatatcag aacaaggatc aaagcatgag cattgaacac 360
aattatTTTT atccacagat ttatgaattc cgtaaggaca acgtaattct tcacacgacg 420
gatcgtcatt gatgcaattg ttaataatat tctctaaatg aaaaaaacia attagcaatc 480
attaaatctt cttaaaaaata 500
```

<210> 131

<211> 376

<212> DNA

<213> Ctenocephalides felis

<400> 131

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actaattgtg gccccgcaa tttcaaaaat gttgatttag tttgagctgc acatgcacga 60
gccataatg tttttcctgt cccgggtggc ccataaagta aaacgccttt ggggtggatgt 120
atccctaaat ttatgaactt ctctttgtgc gtcattggca atacaaccgc ttcaattagt 180
tcttggaatt gcttgtctaa gccaccaatg tcagagtatt gttctgtagg ccgctcatca 240
acctccattg ctttgactcg agcatcatat tcagcaggta atgtttccaa aattaaatat 300
gagtctttgt tgacacctac taaatctcca ggcttcaatt gttctggatc tactaaacct 360
ataacaggta gaaagt 376
```

<210> 132

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 132

```
acggaaccca tgggaatgta aacaaaatTT atacttattg ttaaaatctc tctaaaatat 60
ctgataatTT gatgtgcata tgtctaatga tcatttttga cgcgcaaatg gcacattttt 120
ttactttttc ctccatatct ccaagtcgt tggacctttc caaaattttg aacagttctt 180
catttagtca atacaaataa aatgtttttt aaattattca aatcggaacg tccgttctct 240
taaaaactga gttaccgttt tcggcacttt ttgcccgtat cttcggaacg gctagacctt 300
cctttgcaa aaactaatca gcacgtcttc ttatcaatat gaatogaatg ttttttaaatt 360
tattcaaatt gggtgattcg tggtcccgaa atcgtcgacg aaaatttgta tccgcacata 420
catacataca cacacataca cacacacaca cacacacata catccatttt ttctaaggta 480
tgccaaaatg gtcagaacct 500
```

<210> 133

<211> 235

<212> DNA

<213> Ctenocephalides felis

<400> 133

```
accaccccc aaacacccat taatctcacg gaacgtttct ctagcggatt tgcctttaac 60
gaaggaaaaac tttaaaatag cgcgaaatttc ggcgtaagtg aactccatgt ttacacgtct 120
ataactgtta aacgcaatat ccaaactaat catgcatagc atcgttttgt aggttatgtc 180
aagacctttc aaattatgta tagtattgcc agatacgagc tctgtagcgc tttgt      235
```

<210> 134

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 134

```
acatgtctat atttgctata ttattaccct acacaaatcc ttttcgatat aatcattaca 60
tagtatcact agtcatcat gttatagctg cttgggtttt aaaatgcagg ctgcctttca 120
ggagagatth tgtaaaattt atcaccacgg tatgtgtgaa atataacaat tgtgttaact 180
tggtagtaaa caaaatatat taatcaattc atgacgtata gggcctaaaa tcaaattgca 240
ttgcaccatt tgaggaanga aggatattaa ttaaaccaga ggttacaact ttgaatgaag 300
aatcatctta cngaaaaaga aagtctaggt taacagaacc agntaggtat ttggagggtt 360
tcataagaaa aatgggtgaa atggtaaagt ncacccaag ttttattggc ngccaaaaaa 420
aaatgntttg canattancc taacntccaa attttgggta ntgnataatt ttttaatttac 480
cataatctan gggttnaaaa                                500
```

<210> 135

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 135

```
ctacgatatt tctgncaagt cgaactacaa ttttgaaaaa ccattcctgt ggttggtctg 60
caagcttatt ggagatccca acttagagtt cgttgcaatg ccagcattgg tgcctccaga 120
ggtcaccatg gaccagaat ggaaacagaa gatagagaag gatctgaagg aggctcaaga 180
aaccgctttg ccggaagatg atgaagactt ataagttact ttgttataga caacatgaat 240
gttttgtata ttttgttaat gaaaatgggtg ggtttgaatt tgaataatag agaatgggtt 300
ctgcaaaaatg tctgtgaaata attattttaa cgccagatgt atttttttat tcttaatcat 360
ctgnaaagtg aaaaatttaa aaatgtgagt gctgtaatca tgaatgctga gtgtaata 420
acttttttaa gnaactcgcc taatttttaa ttataattta atataatggg aaccagttgc 480
atccaagttt cagtggatg                                500
```

<210> 136

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 136

atatagtggt ctattaaaga ataactgctg aataataaat taaacagaac caatggctgc 60
aattcgaaaa aagtttagtga ttgtcggaga cggagcgtgc ggtaaaactt gtttgctgat 120
tgtatttagc aaagatcaat ttccagaagt atatgtccca actgtttttg aaaactatgt 180
ggctgacatc gaagtcgatg gaaaacaagt tgaacttgcc ctttgggata ccgccggaca 240
agaagactac gatcgcttgc gacctctcag ttatcctgat actgatgtca ttctgatgtg 300
tttttctgtc gactcacctg attcattaga aaatattcca gaaaaatgga ctccagaggt 360
gaaacacttt tgtccaaatg tacctattat tcttgttgga aataagaaag atttacgcaa 420
tgacccaaac acaatcaaag agttaagtaa gatgaaacag gacctgtgaa gccacaggaa 480
ggcgtgcctg gccgagaaga taaatgcttt gatattttaa tgtctgttaa tcaaagaag 540
agtccagagt 550

<210> 137

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 137

attaccaagt accacctgaa ggaaggatcc ttgtgggaca taaacaatta cctcgagctc 60
tcaccagcac caaacggtga cagaatcgag caaatcagtg caaacgatca cccacaaaga 120
tcaattagat tctatgtag gaaacttaca agcagacatg tccagacaag gtgttaatac 180
tgctcaaaaa ggaagctgtg gtgcttgtga caaagccatt gttggccaag ttataactgc 240
tcttggcaaa acatggcatc ctgaacattt cgtttgcaac cattgcaacc aagaattggg 300
aacaagaaac ttcttcgaaa gagatggaca cccatactgc gaacctgatt accataattt 360
gttcagccca agatgcgcgt attgcaatgg agctattttg gataaatgcg taacagcctt 420
agaaaaaact tggcacacag agcacttctt ctgcgcccaa tgttggtcaac aatttggtga 480
aaaggttcac gaaaaagatg gtaacctat tgcgcatgct atttcgattg ttgtcccaat 540
gtggagatg 549

<210> 138

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 138

gaacgccccaa cgagtgcag atttattttc gtatttttatt tcggttttatt gtgcaaacat 60
ttcgatactt ttgaagtatt gagaactgtg aatagtgttt ctgatttatt atttatattc 120
atcagcgctt gatccaagaa aagccttcca aaaatgagtg tcgctcgcta tgaagatatt 180
gttgtagggc ctttggccaa atttttgagc ctttcaaaaa gtattggcgg agatgttgcg 240
cagcaaactg tttttgtgga gaatgccttt aaggcacaat tagcttttat cacaactgct 300
agcactgcat cacaacctgc toctgatgtc ttacaacaat tattgcaacc gaccagccaa 360
cagatattag cggctcaaga atttcogaga aagcatcggt catcgaactt cgtgaatcat 420
ttagcggcga ttagcgagag cattgcgcac tcggatgggt ttgatttccc taccctgtgt 480
gcatgtgaaa gaaatgcatg atgctgacgt tctcactgcc ggtcttgaag agaaaaggct 540
actgccaat 549

<210> 139
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 139
 gccagtgccg ccatgtctga gagcttgaag caactgccag taatctgggt tttaggtgga 60
 cctggatcgg gcaaaggaac ccaatgtgac aaaattggtg cttaaataatgg attcaccac 120
 ttgtctactg gtgatttgct ccgagctgag gttcaaagtg ggtcagatag aggcaagaac 180
 ctacacggcta tcatggagag aggagaacta gtacccatgg acatagtact tgacttatta 240
 aaagaagcta tgactaaggc cttgcccaca tctaaaggat ttttaattga tggatatccc 300
 cgtgaaaaag accaaggtgt ggctttcgaa aatcaagtga ctcccgtaaa cacaatttta 360
 tatttcgaat gtaagcctga aacattggtc gaacgtcttt tgggacgtgc aaaaacttct 420
 ggccgagctg atgacaatga agagaccatc aaattgcgtt tgatcttcat gccataatg 480
 accaagtttt ggcctatccc agacagactg aagagataac gcgaaaggca gtgataatct 540
 ttgcggaga 549

<210> 140
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 140
 gttttatata taaatatagg attaatttta aggaatatta ttaaatttat ttatatatt 60
 atattttact ccnccggcgc gannangcta gcngntntccc tgntcattgg cggnggcccc 120
 ccnnnctctn cnnnnccccc tcnctcccn cctcnncncc ccnnnctctt acntctctcc 180
 cncncnccc nncctttntc tccccnccc ctcccnnnnn ctctctctctc ttcngnncnc 240
 ncnncnctc ncnctcnnc cctcttccct cntcncccn nccttcccn cctcncccc 300
 tntnccnccg ccccnccenn ctccctctcc tntnctnccn ngtnnnnnnn cennctcenn 360
 ncctcenncc ccnctctctc ctccctctcc nnnnnncccc ctccccctt cncnctcenn 420
 ntcgnnctcn nctctntncc cntnccnnnn ncnncnccnt ntncctcngc ctcccccttc 480
 ntntncccn cctccnctc 500

<210> 141
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 141
 acaagtttga ttacaatgta atttctaagc atttgataaa agtttatatt gctagttttt 60
 taattataat tacaaataac aacataaata tataacacat atgttttata tgttaacaac 120
 attaaacttt ataaataagt attaataat aagccattaa tatttgcttt agggtaaaaa 180
 cttaatacaa ctccataaaa tataaggcct tgattattca caattatctg atttaaggca 240
 ttaaggtaat tgttgaagtt tatgaattat aaaacttttt actttataat cataatataa 300

gttaattgac tgaataaata atttgtttgt ataggtaact atgaccagcc acccgттаac 360
 ttatggaaca tttcttgatt caactgttga tttgcatctt tagatctcat tgacataaat 420
 atgtaacctc cgataaaactc atggatcacc ttgcaatctg ctgataagca tgaaaaatatt 480
 atgntttctt cttcgaatga 500

<210> 142
 <211> 285
 <212> DNA
 <213> Ctenocephalides felis

<400> 142
 acctgngtat ttaattcttc ttattataac atgtttnagt atcatatatt naatatacct 60
 gaattacgga tatatnacta taaacaatth ctaaacataa aatcatatth acacaaatat 120
 tttttatcta ttatttcaat ttagcaaaaa cttctcccaa catttgatta cataaagcag 180
 cataaggatt catttccacc aactgattth ttgcaaaggt ggagcctaag cttgcggctt 240
 tgttgaaatc ttcccgaagt aaatcgtctt caccagttth tctgt 285

<210> 143
 <211> 198
 <212> DNA
 <213> Ctenocephalides felis

<400> 143
 accacaggca ttgacacaag ggттаacaca actattgtcg atacaagctt ggtcttgtct 60
 gcattcttca cttcctatgc attcgtatcg aaaacactgc ctcaaaggat ctcctttatg 120
 atttggcagg catgaacaaa caggtaaccc ctcatggctt ctagtgcatt gcgcatttac 180
 accacaggtg tgataggt 198

<210> 144
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 144
 ataaaaataat tttaaaaaaa atatttttaa atttattagt tatgtaatnt aaaatgaaat 60
 antaataata ataatagtag attagatttg taaaagaaaa attaaaatng tgtataagta 120
 aatttaattt attgtatctn gtgtatcaga gttaatttaa taaaagatat gaagaatatt 180
 nttctcgaat ttaaaagggg aatttattat ttaatttaat gnaatataat tatttataat 240
 aataaattag taatgaaatg ttattcgnth ttaaagntat ctagnththth tagaaataaa 300
 tttattttat tatattttaa tatttatatt aatttattaa atatatatat tttaaatata 360
 aaatattthth agggataagc ttaaaaataa attattataa attaataaat tatttataaa 420
 tttatagggg tataaatatt cattaatata aaaangtata atttatttat aaataaatta 480
 aaattagtag attttaaatt 500

<210> 145
 <211> 474
 <212> DNA
 <213> Ctenocephalides felis

<400> 145
 acaaaaacgc aggaaacccc acgngtgcac ttctataaaa taatatcata gatttgaaaa 60
 ctatccgaat ccaaaagttt taacgcctaa tatttatatc aaaactttcc caacattatc 120
 cctagattct cttaataaaa ctttcatttc attattagaa ccaactcgaac tcaagtttaa 180
 taaaaccatt tcaacattta ttaataattt caaaaacttt atatatcacc attatcccca 240
 gcagaagtat cggagcagtc ataaaattct tcatcagaat cttccggact ttcggactta 300
 ttttcaggat ttgttgaagc agcattgtcc cggtcttgct gccgagcaac gcagcaattc 360
 agcaattgta attgttggtg aagaatacac gtgcgaggat cgggaaatcc gcctccaact 420
 cccggtattt tgtggtatta tcaatcctgt atctcaattc ttccacaaat tcgt 474

<210> 146
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 146
 ttaaaaactaa ctcatcngng taatgttaac atttaaacca ttatacattg caacaagatc 60
 ctngngngtn ggctccaaag cattttcaca atacgcttct tattttattg atcctgtttt 120
 caaaccacaa aaacaaaatg aattagctca agaagggtgan atccaaaact tgcacacgtg 180
 cctattaaag ctgctcgaaa taatgatact agctctgtat tccatgatga tctacttagc 240
 aaattcacaa attatgttat gaaaggcgga caaaagggtt tggctagaaa tttaatagat 300
 gaagcttttg tgaatattaa aagaatacaa attgaaaaat atcacaaggc taaagaggaa 360
 aataagagta atattatact aaatccaaaa gtgatattgc acaatgctat tacaattgc 420
 aggccaggtc taacacttac accaatcaaa agaggagggtg ntctgtatnag ttcctatccc 480
 gacactgaga agcactcata 500

<210> 147
 <211> 347
 <212> DNA
 <213> Ctenocephalides felis

<400> 147
 caattatgtt atttcacctt taaaacttgt attatagcat aatagacaga attatacttc 60
 atctattcat cgtttccgca aataaaccaa ttcgaaaatt acaatatatt ttgcataata 120
 aaattacata ggaaaaataa aacatctatt ctaattaact tactccaatt tttgaggcta 180
 ttttatcagc acatatttca gcaatatctc gacctagcac gccataatat aaccataaaa 240
 atagtaacaa aaaacctaag tccatccaag aatgcggcct ttgattgaag attaaattga 300
 ctccagcaaa tgttgccatc accattccat aaccaattat accaagt 347

<210> 148

<211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 148
 attttttaggc tttaaataac ccaatagatt gtaaaagatg taaaataaaa acactatctc 60
 tgatgcttcc acacaaatac ctatttagta aaataaaaact aaatgaaatt tattagtatt 120
 ttccaaactc atagctcagg caatattata attaatgttg tagaggcagt cttaataata 180
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 atacagttaa actataaaaa aaaggtaaca ccttataact aacagccgaa caaaataaga 300
 aagaagcact tcattaaaca cttacaggta tctgggttaa tcctctatat caaccagcat 360
 gctatcttgg ctcatatgaa gttcatcacg attcattaat aagcccacca actgttcatt 420
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 gctgggtcaac aaacgccggg 500

<210> 149
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 <212> DNA
 <213> Ctenocephalides felis

<400> 149
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 aagatttttc ataattttaa gaaacataaa gagattaata aattcattta ataaaattaa 180
 aagaagattt atttatcaaa ttttcaaata tacatcgaat attattttta atattttaca 240
 agtaactaaa attaaatatt cactctcctt gcctttttat cagcaaaactg atttattaag 300
 tcatattatag ctgatgttgt ttttagtttt tctaattgtt ttgcctctat ggacaataga 360
 gacaggtctg atagacgttc ctgtttttatt gatgttctga gataattttg gattaatttt 420
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 aagctgttat tacatccgga 500

<210> 150
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

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 caatattacg ttatttagac aaagaagact ttcgcgtttt gacggccatt gagatgggca 180
 tgaaaaatca tgaactggtg ccgggatctc ttacagctct gatcgcaaat ttgcgacatg 240
 gtggtgttca caaaatttta agagaacttt gcaaacatcg gttgctgagc tacgaacgtg 300
 gaaaacatta tgatggatac aggctgacaa atatgggcta tgattatctg gccttgaaaag 360
 cattaactat gagaaacgtt gttgagtcac ttggaaatca aattggtgtt ggtaaggaat 420
 cgaatattta tgtttagaca gatgaagaag gtgaagcctt atgtcttaaa ctcccagatt 480
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gnttattatc

550

<210> 151

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 151

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caattttggt cgatcgact ctctacgtat cgggatgtct aggattggac gcctgcacaa 180
tgaaattggt cgcaggagga gctgccgccc aagcaagaca agctttgacc aaccttggac 240
atatcttggc cgctggtgac tcatcatatg accgtgttgt gaaaaccacc gtcttacttg 300
ccgatttagc tgaccttgca gctgtaaatg aagtttatgg acaagtgttt acacatgacc 360
accctgccag atcctccttc aagttggagc actaccaatg aatgctaagg tcgaaattga 420
agtcgttgca gtttcaggag acgtccgaac tattccggag tggaatgcta agaaagtaag 480
aataatatca taattaatag tgttcagtaa attatagttt atatgtaaat aattaactac 540
catagtttt 549

<210> 152

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 152

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gattcgcttg gggaggacaa tatagagctg cgggatatta tgcttcgatt ttacttggta 180
cggcattggc gtgttggtg cttatgaacc tgctcctggt agctgtcccg cgatatggag 240
cctatttgat gtttacgact gggcttttat tggctgccac ggatttaggc tactatctga 300
tgttgccagc aaggcctcta cgaattgtac ttgaaggcgg agcgcctcgat tttcgattag 360
gatggtgctt ctggctggtc ttagttgctg gaagtatatg ctcatittcc ggattagtaa 420
taacgtgcgt ggatttggca tttctcaccg attttcgact gtcttgaggt gactatgatc 480
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<210> 153

<211> 633

<212> DNA

<213> Ctenocephalides felis

<220>

<221> CDS

<222> (67)..(507)

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102

<210> 154
 <211> 147
 <212> PRT
 <213> Ctenocephalides felis

<400> 154
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 20 25 30
 Gln Ile Gly Lys Asp Cys Ala Val Glu Thr Gly Ala Ser Ser Asp Asp
 35 40 45
 Ile Glu Lys Leu Leu Gln Lys Asn Ile Pro Asp Ser Lys Pro Gly Lys
 50 55 60
 Cys Met Ile Asn Cys Val Tyr Lys Lys Leu Gly Val Met Lys Asp Gly
 65 70 75 80
 Lys Tyr His Pro Asp Ala Gly Ile Glu Val Ser Ala Met Val His Glu
 85 90 95
 His Asp Ser Glu Leu Met Glu Lys Val Lys Lys Ile Ala Thr Glu Cys
 100 105 110
 Asp Ser Glu Ala Lys Gly Glu Asp Glu Cys Glu Ile Ala Ala Lys Ala
 115 120 125
 Met Glu Cys Gly Val Arg Met Ala Lys Glu His Asn Leu Met Asp Ala
 130 135 140
 Ile Pro Ile
 145

<210> 155
 <211> 633
 <212> DNA
 <213> Ctenocephalides felis

<400> 155
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 ctattatatt ggtatcgcgt ccattaggtt gtgttctttg gccatcctca cgccgcactc 180
 cattgctttg gcagcaattt cgcactcgtc ttctcctttg gcttcgctgt cacattcgggt 240

tgcgattttc ttaacttttt ccattaattc tgaatcgtgt tcgtgtacca tggctgatac 300
 ttcaattccg gcatcaggat ggtattttcc atctttcatc actccaagtt tcttgtaaac 360
 gcaattaatc atgcattttc caggctttga atctggatg ttcttttgca gtaatttttc 420
 aatatcatct gaagaagctc ctgtttctac agcacaatcc ttaccaatct gcaaaagttt 480
 ttcttttgct tcttcttttag tatatttagc agcctctgcc gcagaatata aagcgaccag 540
 tgttccaatc accaagaata tcttcatttt gattttcttc tacttcaaat ttataaaaca 600
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<210> 156

<211> 441

<212> DNA

<213> *Ctenocephalides felis*

<220>

<221> CDS

<222> (1)..(441)

<400> 156

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1 5 10 15	
 gca gag gct gct aaa tat act aaa gaa gaa gca aaa gaa aaa ctt ttg	96
Ala Glu Ala Ala Lys Tyr Thr Lys Glu Glu Ala Lys Glu Lys Leu Leu	
20 25 30	
 cag att ggt aag gat tgt gct gta gaa aca gga gct tct tca gat gat	144
Gln Ile Gly Lys Asp Cys Ala Val Glu Thr Gly Ala Ser Ser Asp Asp	
35 40 45	
 att gaa aaa tta ctg caa aag aac ata cca gat tca aag cct gga aaa	192
Ile Glu Lys Leu Leu Gln Lys Asn Ile Pro Asp Ser Lys Pro Gly Lys	
50 55 60	
 tgc atg att aat tgc gtt tac aag aaa ctt gga gtg atg aaa gat gga	240
Cys Met Ile Asn Cys Val Tyr Lys Lys Leu Gly Val Met Lys Asp Gly	
65 70 75 80	
 aaa tac cat cct gat gcc gga att gaa gta tca gcc atg gta cac gaa	288
Lys Tyr His Pro Asp Ala Gly Ile Glu Val Ser Ala Met Val His Glu	
85 90 95	
 cac gat tca gaa tta atg gaa aaa gtt aag aaa atc gca acc gaa tgt	336
His Asp Ser Glu Leu Met Glu Lys Val Lys Lys Ile Ala Thr Glu Cys	
100 105 110	
 gac agc gaa gcc aaa gga gaa gac gag tgc gaa att gct gcc aaa gca	384

Asp Ser Glu Ala Lys Gly Glu Asp Glu Cys Glu Ile Ala Ala Lys Ala
115 120 125

atg gag tgc ggc gtg agg atg gcc aaa gaa cac aac cta atg gac gcg 432
Met Glu Cys Gly Val Arg Met Ala Lys Glu His Asn Leu Met Asp Ala
130 135 140

ata cca ata 441
Ile Pro Ile
145

<210> 157
<211> 147
<212> PRT
<213> Ctenocephalides felis

<400> 157
Met Lys Ile Phe Leu Val Ile Gly Thr Leu Val Ala Leu Tyr Ser Ala
1 5 10 15

Ala Glu Ala Ala Lys Tyr Thr Lys Glu Glu Ala Lys Glu Lys Leu Leu
20 25 30

Gln Ile Gly Lys Asp Cys Ala Val Glu Thr Gly Ala Ser Ser Asp Asp
35 40 45

Ile Glu Lys Leu Leu Gln Lys Asn Ile Pro Asp Ser Lys Pro Gly Lys
50 55 60

Cys Met Ile Asn Cys Val Tyr Lys Lys Leu Gly Val Met Lys Asp Gly
65 70 75 80

Lys Tyr His Pro Asp Ala Gly Ile Glu Val Ser Ala Met Val His Glu
85 90 95

His Asp Ser Glu Leu Met Glu Lys Val Lys Lys Ile Ala Thr Glu Cys
100 105 110

Asp Ser Glu Ala Lys Gly Glu Asp Glu Cys Glu Ile Ala Ala Lys Ala
115 120 125

Met Glu Cys Gly Val Arg Met Ala Lys Glu His Asn Leu Met Asp Ala
130 135 140

Ile Pro Ile
145

<210> 158
 <211> 441
 <212> DNA
 <213> Ctenocephalides felis

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 tttcttaact ttttccatta attctgaatc gtgttcgtgt accatggctg atacttcaat 180
 tccggcatca ggatggatatt ttccatcttt catcactcca agtttcttgt aaacgcaatt 240
 aatcatgcat tttccaggct ttgaatctgg tatgttcttt tgcagtaatt tttcaatata 300
 atctgaagaa gctcctgttt ctacagcaca atccttacca atctgcaaaa gtttttcttt 360
 tgcttcttct ttagtatatt tagcagcctc tgccgcagaa tataaagcga ccagtgttcc 420
 aatcaccaag aatatcttca t 441

<210> 159
 <211> 384
 <212> DNA
 <213> Ctenocephalides felis

<220>
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 aag gat tgt gct gta gaa aca gga gct tct tca gat gat att gaa aaa 96
 Lys Asp Cys Ala Val Glu Thr Gly Ala Ser Ser Asp Asp Ile Glu Lys
 20 25 30
 tta ctg caa aag aac ata cca gat tca aag cct gga aaa tgc atg att 144
 Leu Leu Gln Lys Asn Ile Pro Asp Ser Lys Pro Gly Lys Cys Met Ile
 35 40 45
 aat tgc gtt tac aag aaa ctt gga gtg atg aaa gat gga aaa tac cat 192
 Asn Cys Val Tyr Lys Lys Leu Gly Val Met Lys Asp Gly Lys Tyr His
 50 55 60
 cct gat gcc gga att gaa gta tca gcc atg gta cac gaa cac gat tca 240
 Pro Asp Ala Gly Ile Glu Val Ser Ala Met Val His Glu His Asp Ser
 65 70 75 80

gaa tta atg gaa aaa gtt aag aaa atc gca acc gaa tgt gac agc gaa 288
Glu Leu Met Glu Lys Val Lys Lys Ile Ala Thr Glu Cys Asp Ser Glu
85 90 95

gcc aaa gga gaa gac gag tgc gaa att gct gcc aaa gca atg gag tgc 336
Ala Lys Gly Glu Asp Glu Cys Glu Ile Ala Ala Lys Ala Met Glu Cys
100 105 110

ggc gtg agg atg gcc aaa gaa cac aac cta atg gac gcg ata cca ata 384
Gly Val Arg Met Ala Lys Glu His Asn Leu Met Asp Ala Ile Pro Ile
115 120 125

<210> 160

<211> 128

<212> PRT

<213> Ctenocephalides felis

<400> 160

Ala Lys Tyr Thr Lys Glu Glu Ala Lys Glu Lys Leu Leu Gln Ile Gly
1 5 10 15

Lys Asp Cys Ala Val Glu Thr Gly Ala Ser Ser Asp Asp Ile Glu Lys
20 25 30

Leu Leu Gln Lys Asn Ile Pro Asp Ser Lys Pro Gly Lys Cys Met Ile
35 40 45

Asn Cys Val Tyr Lys Lys Leu Gly Val Met Lys Asp Gly Lys Tyr His
50 55 60

Pro Asp Ala Gly Ile Glu Val Ser Ala Met Val His Glu His Asp Ser
65 70 75 80

Glu Leu Met Glu Lys Val Lys Lys Ile Ala Thr Glu Cys Asp Ser Glu
85 90 95

Ala Lys Gly Glu Asp Glu Cys Glu Ile Ala Ala Lys Ala Met Glu Cys
100 105 110

Gly Val Arg Met Ala Lys Glu His Asn Leu Met Asp Ala Ile Pro Ile
115 120 125

<210> 161

<211> 384

<212> DNA

<213> Ctenocephalides felis

<400> 161

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tttcttaact ttttccatta attctgaatc gtgttcgtgt accatggctg atacttcaat 180
tccggcatca ggatggtatt ttccatcttt catcactcca agtttcttgt aaacgcaatt 240
aatcatgcat tttccaggct ttgaatctgg tatgttcttt tgcagtaatt tttcaatata 300
atctgaagaa gctcctgttt ctacagcaca atccttacca atctgcaaaa gtttttcttt 360
tgcttcttct ttagtatatt tagc 384
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<210> 162

<211> 631

<212> DNA

<213> Ctenocephalides felis

<220>

<221> CDS

<222> (65)..(505)

<400> 162

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caaa atg aag ata ttc ttg gtg att gga gca ctg gtt gct tta tat tct 109
Met Lys Ile Phe Leu Val Ile Gly Ala Leu Val Ala Leu Tyr Ser
1 5 10 15

gtg gca gag gct gca aaa tat acc aaa gaa gaa gca aag gaa aaa ctt 157
Val Ala Glu Ala Ala Lys Tyr Thr Lys Glu Glu Ala Lys Glu Lys Leu
20 25 30

ttg cag ata ggc aaa gat tgt gct gta gaa aca gga gca tct tca gat 205
Leu Gln Ile Gly Lys Asp Cys Ala Val Glu Thr Gly Ala Ser Ser Asp
35 40 45

gat atc gaa aaa tta ttg cag aag aac ata cca gat tca aaa gca gga 253
Asp Ile Glu Lys Leu Leu Gln Lys Asn Ile Pro Asp Ser Lys Ala Gly
50 55 60

aaa tgc atg atc aat tgc gtt tac aag aaa ctt gga gtg atg aaa gat 301
Lys Cys Met Ile Asn Cys Val Tyr Lys Lys Leu Gly Val Met Lys Asp
65 70 75

gga aaa tac cat cct gat gcc gga att gaa gta tca gcc atg gta cac 349
Gly Lys Tyr His Pro Asp Ala Gly Ile Glu Val Ser Ala Met Val His
80 85 90 95
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05991936 "12101"

gaa cac gat tca gaa tta atg gaa aaa gtt aag aaa atc gca acc gaa 397
 Glu His Asp Ser Glu Leu Met Glu Lys Val Lys Lys Ile Ala Thr Glu
 100 105 110

tgt gac agc gag gcc aaa gga gaa gac gag tgc gaa att gct gcc aaa 445
 Cys Asp Ser Glu Ala Lys Gly Glu Asp Glu Cys Glu Ile Ala Ala Lys
 115 120 125

gca atg gcg tgc ggc gtg agg atg gcc aaa gaa cac aac tta atg gac 493
 Ala Met Ala Cys Gly Val Arg Met Ala Lys Glu His Asn Leu Met Asp
 130 135 140

gcg ata cca ata taatagtaaa aaaatctttg ttaggtcggg tgaagacctg 545
 Ala Ile Pro Ile
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tcaaaatgta gtcgttaaata tgtagtgtga agttgtcacg atgtgggctg aggaataaaaa 605

tggtatttaa aaaaaaaaaa aaaaaa 631

<210> 163

<211> 147

<212> PRT

<213> Ctenocephalides felis

<400> 163

Met Lys Ile Phe Leu Val Ile Gly Ala Leu Val Ala Leu Tyr Ser Val
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Ala Glu Ala Ala Lys Tyr Thr Lys Glu Glu Ala Lys Glu Lys Leu Leu
 20 25 30

Gln Ile Gly Lys Asp Cys Ala Val Glu Thr Gly Ala Ser Ser Asp Asp
 35 40 45

Ile Glu Lys Leu Leu Gln Lys Asn Ile Pro Asp Ser Lys Ala Gly Lys
 50 55 60

Cys Met Ile Asn Cys Val Tyr Lys Lys Leu Gly Val Met Lys Asp Gly
 65 70 75 80

Lys Tyr His Pro Asp Ala Gly Ile Glu Val Ser Ala Met Val His Glu
 85 90 95

His Asp Ser Glu Leu Met Glu Lys Val Lys Lys Ile Ala Thr Glu Cys
 100 105 110

Asp Ser Glu Ala Lys Gly Glu Asp Glu Cys Glu Ile Ala Ala Lys Ala
 115 120 125

Met Ala Cys Gly Val Arg Met Ala Lys Glu His Asn Leu Met Asp Ala
 130 135 140

Ile Pro Ile
 145

<210> 164
 <211> 631
 <212> DNA
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 ctattatatt ggtatcgcgt ccattaagtt gtgttctttg gccatcctca cgccgcacgc 180
 cattgctttg gcagcaattt cgcactcgtc ttctcctttg gcctcgtgt cacattcgtt 240
 tgcgattttc ttaacttttt ccattaattc tgaatcgtgt tcgtgtacca tggctgatac 300
 ttcaattccg gcatcaggat ggtattttcc atctttcatc actccaagtt tcttgtaaac 360
 gcaattgata atgcattttc ctgcttttga atctggtatg ttcttctgca ataatttttc 420
 gatatcatct gaagatgctc ctgtttctac agcacaatct ttgcctatct gcaaaaagttt 480
 ttcctttgct tcttcttttg tatattttgc agcctctgcc acagaatata aagcaaccag 540
 tgctccaatc accaagaata tcttcatttt gatttcttct actttaaatt tataaataaa 600
 cttttttata attttccaat atagtattta c 631

<210> 165
 <211> 441
 <212> DNA
 <213> Ctenocephalides felis

<220>
 <221> CDS
 <222> (1)..(441)

<400> 165
 atg aag ata ttc ttg gtg att gga gca ctg gtt gct tta tat tct gtg 48
 Met Lys Ile Phe Leu Val Ile Gly Ala Leu Val Ala Leu Tyr Ser Val
 1 5 10 15
 gca gag gct gca aaa tat acc aaa gaa gaa gca aag gaa aaa ctt ttg 96
 Ala Glu Ala Ala Lys Tyr Thr Lys Glu Glu Ala Lys Glu Lys Leu Leu
 20 25 30

cag ata ggc aaa gat tgt gct gta gaa aca gga gca tct tca gat gat 144
 Gln Ile Gly Lys Asp Cys Ala Val Glu Thr Gly Ala Ser Ser Asp Asp
 35 40 45

atc gaa aaa tta ttg cag aag aac ata cca gat tca aaa gca gga aaa 192
 Ile Glu Lys Leu Leu Gln Lys Asn Ile Pro Asp Ser Lys Ala Gly Lys
 50 55 60

tgc atg atc aat tgc gtt tac aag aaa ctt gga gtg atg aaa gat gga 240
 Cys Met Ile Asn Cys Val Tyr Lys Lys Leu Gly Val Met Lys Asp Gly
 65 70 75 80

aaa tac cat cct gat gcc gga att gaa gta tca gcc atg gta cac gaa 288
 Lys Tyr His Pro Asp Ala Gly Ile Glu Val Ser Ala Met Val His Glu
 85 90 95

cac gat tca gaa tta atg gaa aaa gtt aag aaa atc gca acc gaa tgt 336
 His Asp Ser Glu Leu Met Glu Lys Val Lys Lys Ile Ala Thr Glu Cys
 100 105 110

gac agc gag gcc aaa gga gaa gac gag tgc gaa att gct gcc aaa gca 384
 Asp Ser Glu Ala Lys Gly Glu Asp Glu Cys Glu Ile Ala Ala Lys Ala
 115 120 125

atg gcg tgc ggc gtg agg atg gcc aaa gaa cac aac tta atg gac gcg 432
 Met Ala Cys Gly Val Arg Met Ala Lys Glu His Asn Leu Met Asp Ala
 130 135 140

ata cca ata 441
 Ile Pro Ile
 145

<210> 166

<211> 147

<212> PRT

<213> Ctenocephalides felis

<400> 166

Met Lys Ile Phe Leu Val Ile Gly Ala Leu Val Ala Leu Tyr Ser Val
 1 5 10 15

Ala Glu Ala Ala Lys Tyr Thr Lys Glu Glu Ala Lys Glu Lys Leu Leu
 20 25 30

Gln Ile Gly Lys Asp Cys Ala Val Glu Thr Gly Ala Ser Ser Asp Asp
 35 40 45

Ile Glu Lys Leu Leu Gln Lys Asn Ile Pro Asp Ser Lys Ala Gly Lys
 50 55 60

Cys Met Ile Asn Cys Val Tyr Lys Lys Leu Gly Val Met Lys Asp Gly
 65 70 75 80

Lys Tyr His Pro Asp Ala Gly Ile Glu Val Ser Ala Met Val His Glu
 85 90 95

His Asp Ser Glu Leu Met Glu Lys Val Lys Lys Ile Ala Thr Glu Cys
 100 105 110

Asp Ser Glu Ala Lys Gly Glu Asp Glu Cys Glu Ile Ala Ala Lys Ala
 115 120 125

Met Ala Cys Gly Val Arg Met Ala Lys Glu His Asn Leu Met Asp Ala
 130 135 140

Ile Pro Ile
 145

<210> 167
 <211> 441
 <212> DNA
 <213> Ctenocephalides felis

<400> 167
 tattggtatc gcgtccatta agttgtgttc tttggccatc ctcacgccgc acgccattgc 60
 tttggcagca atttcgcact cgtcttctcc tttggcctcg ctgtcacatt cggttgcgat 120
 tttcttaact ttttccatta attctgaatc gtgttcgtgt accatggctg atacttcaat 180
 tccggcatca ggatgggtatt ttccatcttt catcactcca agtttcttgt aaacgcaatt 240
 gatcatgcat tttctgtctt ttgaatctgg tatgttcttc tgcaataatt tttcgatata 300
 atctgaagat gctcctgttt ctacagcaca atctttgcct atctgcaaaa gtttttcctt 360
 tgcttcttct ttggtatatt ttgcagcctc tgccacagaa tataaagcaa ccagtgtctc 420
 aatcaccaag aatatcttca t 441

<210> 168
 <211> 384
 <212> DNA
 <213> Ctenocephalides felis

<220>
 <221> CDS
 <222> (1)..(384)

<400> 168

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gca aaa tat acc aaa gaa gaa gca aag gaa aaa ctt ttg cag ata ggc 48
Ala Lys Tyr Thr Lys Glu Glu Ala Lys Glu Lys Leu Leu Gln Ile Gly
  1             5             10             15

aaa gat tgt gct gta gaa aca gga gca tct tca gat gat atc gaa aaa 96
Lys Asp Cys Ala Val Glu Thr Gly Ala Ser Ser Asp Asp Ile Glu Lys
      20             25             30

tta ttg cag aag aac ata cca gat tca aaa gca gga aaa tgc atg atc 144
Leu Leu Gln Lys Asn Ile Pro Asp Ser Lys Ala Gly Lys Cys Met Ile
      35             40             45

aat tgc gtt tac aag aaa ctt gga gtg atg aaa gat gga aaa tac cat 192
Asn Cys Val Tyr Lys Lys Leu Gly Val Met Lys Asp Gly Lys Tyr His
      50             55             60

cct gat gcc gga att gaa gta tca gcc atg gta cac gaa cac gat tca 240
Pro Asp Ala Gly Ile Glu Val Ser Ala Met Val His Glu His Asp Ser
      65             70             75             80

gaa tta atg gaa aaa gtt aag aaa atc gca acc gaa tgt gac agc gag 288
Glu Leu Met Glu Lys Val Lys Lys Ile Ala Thr Glu Cys Asp Ser Glu
      85             90             95

gcc aaa gga gaa gac gag tgc gaa att gct gcc aaa gca atg gcg tgc 336
Ala Lys Gly Glu Asp Glu Cys Glu Ile Ala Ala Lys Ala Met Ala Cys
      100             105             110

ggc gtg agg atg gcc aaa gaa cac aac tta atg gac gcg ata cca ata 384
Gly Val Arg Met Ala Lys Glu His Asn Leu Met Asp Ala Ile Pro Ile
      115             120             125

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<210> 169

<211> 128

<212> PRT

<213> Ctenocephalides felis

<400> 169

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Ala Lys Tyr Thr Lys Glu Glu Ala Lys Glu Lys Leu Leu Gln Ile Gly
  1             5             10             15

Lys Asp Cys Ala Val Glu Thr Gly Ala Ser Ser Asp Asp Ile Glu Lys
      20             25             30

Leu Leu Gln Lys Asn Ile Pro Asp Ser Lys Ala Gly Lys Cys Met Ile
      35             40             45

```

Asn Cys Val Tyr Lys Lys Leu Gly Val Met Lys Asp Gly Lys Tyr His
50 55 60

Pro Asp Ala Gly Ile Glu Val Ser Ala Met Val His Glu His Asp Ser
65 70 75 80

Glu Leu Met Glu Lys Val Lys Lys Ile Ala Thr Glu Cys Asp Ser Glu
85 90 95

Ala Lys Gly Glu Asp Glu Cys Glu Ile Ala Ala Lys Ala Met Ala Cys
100 105 110

Gly Val Arg Met Ala Lys Glu His Asn Leu Met Asp Ala Ile Pro Ile
115 120 125

<210> 170

<211> 384

<212> DNA

<213> Ctenocephalides felis

<400> 170

tattggtatc gcggtccatta agttgtgttc tttggccatc ctacgcccgc acgccattgc 60
tttggcagca atttcgcact cgtcttctcc tttggcctcg ctgtcacatt cggttgcgat 120
tttcttaact ttttccatta attctgaatc gtgttcgtgt accatggctg atacttcaat 180
tccggcatca ggatggtatt ttccatcttt catcactcca agtttcttgt aaacgcaatt 240
gatcatgcat tttcctgctt ttgaatctgg tatgttcttc tgcaataatt tttcgatata 300
atctgaagat gctcctgttt ctacagcaca atctttgcct atctgcaaaa gtttttcctt 360
tgcttcttct ttggtatatt ttgc 384

<210> 171

<211> 133

<212> DNA

<213> Ctenocephalides felis

<400> 171

ctgtangtga agaattatta ggcagagtag ttgatgcttt aggaaatgcc attgatggca 60
aagggtgcttt acaaagcaaa accagattcc gtgtaggaac taaagctccc ggtatcattc 120
cacgtgtctc tgt 133

<210> 172

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 172

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gctgtaaatt gggcggctct tgccgagcgt gttccacctg cccaaaaacc caattttaatg 60
gccttcaaag taaaaagtga cggatatatg aggagggttg cggcgaatcc ggaaaatcca 120
ccagcttttag attggaactt ttataagaag tttgtgagtg tgcctggaat ggtagccgaa 180
tttcaaaaac aatgcgagtc tctgaaagtc ccatatccag ccgataatta cacttctaaa 240
gtcgatgaac aagaacggca agtcaaggct gaaatagaaa ccttcaaaaa ggagtctaata 300
gatcgtatta caaaatatca agctgatatg gaaaggctta aggctttgtt gccatatgaa 360
agcatgacgt tggaagactt ccatgatgca catcctgact tggctttgga tgctgttaac 420
aaaccaacgt tctggcctna cacttcagag gaacaattgg gataccaatc caaagatcca 480
gtagaagctc cttctcat 498
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<210> 173

<211> 557

<212> DNA

<213> Ctenocephalides felis

<400> 173

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tccaaaaata ttcttatggt agccaatgag gttggacgta aaccaccaac tttccaagat 60
gcagctaaat taacaaatgc tgtattgaat tcaggttatg atttcgcac cggaaaaata 120
atttacaata aatttaaate tggtgtctcc tacagttctg ctgaattacc attgttttagc 180
ctgggagctg ttgagtcctgc cccaaaattg ggtgtatacg attccttaga tgctgatgtc 240
atccaaagct acttgggaatt ttcaatggct tcattattat tctacacaat gaaggaagga 300
gcttgctcgg agcagtcac ccgatgact gctatggaca atgctagcaa gaatgcagga 360
gaaatgattg acaaattgac attaacatcc aacagaacta gacaggctgt catcaccaga 420
gaacttattg aaattatttc tggagctgct tctttggatt aaatttcata cnaatatttt 480
aatatgtggc ttcattctaag tagctcaatt tattacaata tctttaatac tttgggttatt 540
tttaatttga atcttgg 557
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<210> 174

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 174

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aatcaattat ttattgacta tataaataat atacagatgt tagttaaata tgcatacaac 60
atgaacattt cattttcttc tatttttgac aaagtttatt ttaaacaggt gttgaaataa 120
tttcagtgtg cagctttact ttactggcaa cactcatatc aacataacga tctccaattg 180
atacgaccat tccaccaag attgagggat taactttaag ggtagtaata agttttctt 240
tggtttttta gaactctctt aaagtgcctt caagttgttt ttgttgattc tcatctaaag 300
gttttagctgt tgtaacttca catggaacct ctccacgatg agcagacatc ataactttat 360
aagcgttgat aacaccttcc agtttattta aacgtccatt ctcagcaagt aactccagca 420
agttggatgt agctggagcc atttgcagct tgctgctggc ttccttcaat gcatttgatt 480
taatggagcg cttgaaag 498
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<210> 175
 <211> 236
 <212> DNA
 <213> Ctenocephalides felis

<400> 175
 tttttttttt tttttttttt ttttttttgg naaattttctc tagangaaaag aggnnttaaa 60
 acagcaaata cataagattg aataatagat acagcanttt ntaaaattaa taaaattaat 120
 tgagagaaaa ttaaaattca aattaatcat atagataggg agtttcctgt attgccaagt 180
 aaagttagaa ttaaatgtcc agcaattatn tttgctgaga gtcggatggc taaagt 236

<210> 176
 <211> 161
 <212> DNA
 <213> Ctenocephalides felis

<400> 176
 atcttgctcct tcctgggtcac ggaagtattc agntacagtt aatccagtca aagcgacacg 60
 ggcaacgggcg cctgggggtt cgttcatctg tccgtagaca agagctacct tggaggtcct 120
 gtctttcaag gaaatgacac caccttcaat catttcattg t 161

<210> 177
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 177
 gacangttat gttattttatt tcatctgatt ttatcacata aaaacaaaaa taagtagcat 60
 ggatttcata cttttaatta taaaatgcag tacagttaa aatttgtaa aaagacagtg 120
 ttacttattt aataatacat gaaattatgc aacttacatt ttcatttttg ataacgtatt 180
 tctaattcaa tactcactta ttttattaaa ttatgcatta aaagtagcta aaaagtcagc 240
 tacaattttc ttttaattggg catcagatgc ttcactaatc gttccttcct tggcaatggg 300
 ttgcaaaaagg gatgaatggg tggctttgat gtgagcgta aattcctttt caaatgctgt 360
 gatcttggtt ggggtccattt tgtccaagtg tcctcggaaca ccacagtaga taattgcaac 420
 ttgttcttca atagccattg ggacatattg ccttgcttca ataattcagt caaacgaaca 480
 cctctgttaa caattgtgtg tggatgatcaa gactgaccga attggcaaaa gcagcaccta 540
 cgatttgac 549

<210> 178
 <211> 400
 <212> DNA
 <213> Ctenocephalides felis

<400> 178
 gatncttgaa agtccgaaaa ttattaatat cattaattaa aatggaccag ggaaaagcac 60

cagttcgcgt ttcacctctg atcaaattcg gaaggtggag ttttctcgtt gtcggaatat 120
 tatatggagc agctcaccaa agcaggctgg caaaacgcga agtaggaatt agagaagtcg 180
 aagctaaaca taaagcaatt cgggatgcaa aattagctga ggaaaagaaa cgagctcaag 240
 aagaggaaaa caaatacttc gcttcacttt aaacagatta gcattattaa ataggaaatg 300
 cagtaacatt caccataagg cattagatgt gctctgtaaa ttattcggat tttatgtgaa 360
 ataaaaagtt attatacata caaaaaaaaa aaaaaaaaaa 400

<210> 179

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 179

atcagccact gcttctgatg ctgcccctct tcaatatctt gctccatact ctggatgtgc 60
 tatgggtgaa ttcttccgtg acaatggaaa acatgctttg atcatctatg atgatttatc 120
 caaacaagct gttgcttctc gtcaaagtgc tctattgtta cgtcgtccac caggctcgtg 180
 ggcttatcca ggtgatgtct tctaccttca ctacagctta cttgaacgtg ccgctaaaaat 240
 gtctgaagct catggagggt gctctttgac tgctttgcca gttattgaaa cacaagctgg 300
 tgacgtatca gcttatattc caactaatgt catttccatt actgatggtc aaatcttctt 360
 ggaaactgaa ttgttctaca aggggtattcg accagccatc aatgtaggtt tatctgtatc 420
 tcgtgtaggt tctgctgcac aaaccaaagc catgaaacag gttgccggtc catgaaactg 480
 gaatagctca tatcgtgagg tggctgtttt gccaatcggc ctagatcttg atgcancacc 540
 aacaatggt 549

<210> 180

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 180

gttaatatag gattcgttgt ttctagaacc acaacaaatt aaaacacacc aagatgttct 60
 cagcagcaaa attcatcgcc ccagtcgcca aatccgcatt tgtcaatgga tcaaaggcat 120
 atctgcgacc aatctcaagt gcagtattga ctcaaagctc tactatcaat gtattacctg 180
 cagccgctca atctagcatt ttaccacaag ttcgttgtct gcaaaactaca gcagtaacga 240
 aagacattga ttcagcagct aaatttattg gtgctggagc agccaccgta ggagtagcag 300
 gatcaggagc tgggtattggt tcagtctttg gatcattaat cattgggttat gcacgtaatc 360
 catcccttaa acaacaacta ttctcatatg ccattcttgg atttgcatg tcagaagcta 420
 tgggactttt ctgcttatga tggctttctt actgtattcg catttctaatt tggttttcat 480
 ttgccgaag agggctctaga agagtgtcna cgtatcacca ggactgtatt aatcattcaa 540
 atccattant 550

<210> 181

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 181

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caagttatct ctgaattcct tcacggctcc tcttgcgcat ttgccgactt cacgaaccaa 60
gttgcccaat tgggaccagg tttctttgaa agccttggcc aagtccttgg ctcccttcacg 120
ggcagcttga aggacatctt tcaagcaagc tctggcttca tcgacatcgg ctgacggtaac 180
aacgcactcc ttggcttgtg ctctgagggc ttcggcggtc tccctggctt ctctccaggc 240
ggccaagcca ttttgcgaa cttggttgaa ttctcacgt ttatcatccc tgcaagcctt 300
gaccttagca cgagcttctt gtgcaaaacc tagagctttt tgggtgttggc ctttaaggca 360
ttcctttgcg gcttcaactca cttttttgct aagtttcctt tcaacttctt tgttgaacct 420
ttccaaatct ctatcgactt cangggcaaa tccttgtttt tcgaattcag cagcaatcat 480
ttaattttgc tatcntgg 498
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<210> 182

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 182

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ggtccgcaat tatgacgtaa cggatcatat gcaaaatttg cggggcaata atattgggtt 120
cctatactat tttcgtcaca ataataatag ctttgacaat catttatatt tggataaaaat 180
ctcgatggtg acggacattt gaaaccttgt actttgcana ctgtactttc tttagtgggtg 240
cactgtagat atccactttg atcagcgcac acttgatctg ggctacagga ttccttaacc 300
ggatctgctc ctatttccgg acaatactgc atttcgggtg aactgcacga attcacgcaa 360
ctaaatttta cttttttaca tttttgctcg ggtttcggta cangtgtacg ttcangagta 420
gtactactcc tgggtcgggc tcatccaatg atgcaaatac ttctttattt actgttaaan 480
gcgttccgtc gacattaa 498
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<210> 183

<211> 424

<212> DNA

<213> Ctenocephalides felis

<400> 183

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ccagcatttg atggagtaaa gaatgtatat gcttcttcac cccttcctaa agtgggtgtt 60
aatgtccttc aaggagaggt ttctattata aaccctgata atgaactgga aaaaaaatat 120
aaagtaacta ttaaatttgc ttcttatggt gacatgactt ccctttcaaa atatatggaa 180
aatggatcat ctattgagac accgcaggaa gccctgcaat gtattgacat catatttagg 240
catgcactct ccaaacaatt tgttcagggt ggaaagtcct tctttacacc acccagtgggt 300
cgaattgttt ctcttggtga tggaaatggat ctatggtatg ggttattttc tagttgtgtt 360
ttangatgga aaaatgtaga tgttgcacat aaaaggattt caactaaaca actantncag 420
aant 424
```

<210> 184

<211> 313

<212> DNA

<213> Ctenocephalides felis

<400> 184

aattcttggc tataagttcg ttgcatgttt tgcaagtgat ttgtttattg catttattcc 60
cgtggcatat ttacatgaa tcagagtttg cattacaatc gttaccctga tctgatttgc 120
atcctcgagt aatgacacct ttttcaattt ttgaatagca gtcgtccttt ggattcatac 180
aaacttttgt cttcgtcttt cctgcatctt tgaaacattc gtttcttagt tctggaagtt 240
tttgaacgtt acaacccgat ttctcgcaac acattttttc tcgggttagtc gagtcacaac 300
tttctttaac cgt 313

<210> 185

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 185

tatttgatct aaaagcagat aaacactttc tctgtttttg actgcttctt tctcggcctc 60
ttgtcctaatt cttagtaaac ttgatgatgt tagtgctaaa aattccttca tcctatcttc 120
aatatcaccc tgtccacaag tagtaaaca agcaccaaaa atattattaa tggctaaagc 180
catacaatgc atattgttag tatggccttc caaacttgct cgggtanaaag attgatcgct 240
tcttgctaatt tttggaatag aaacagctac aaaaaccatc aataagcata ctaacaaatg 300
ttcatcctcc tcgtgttctg acttctgctg cctcaaagca tttgctanag ttggatctac 360
tttacaagtc aaacctgctg ccgatgacat ctcaagaaac aattttcatt gggctctcac 420
ttggcaatga tgtttaatgt ccttggtan aacttataaa aatggtatac gctgttctaa 480
cacgtctact anagatct 498

<210> 186

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 186

aaaacttcaa agaacattcc atccaatgga ttttcaaaca ttctcatcat acggtagttt 60
gatataggaa aattaacaaa tacaataaca atatattaaa ctattcatat tagttatact 120
atatttttct taatccacaa gttcagagac ttcagtaatt gtagcatctg ctaacatgcc 180
ttttttgtca ccagttatta catgaccaac aataaaaagct ttttgctttt caagctcata 240
aatctcttta atatatcctt ctgcatctgc ttttggtaaa gctattaata ggcctcctga 300
agttttctggc aaatatcctt ctgctagctt aaacattttg ctgaagattt tggcaacttc 360
ggaacatttg taaaaaactg gtagtttatt caatacaaat gaaacattat ttttctgatt 420
ctggggccaaa ttatcagcat gaccgagaat tccaaagcct gtgacatcag tagcatcatg 480
agcattatat ttatgcaa 498

<210> 187

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 187

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cattttctgc agaacagcaa ctaccagaac cgctacctcc attggaacca cgaggagcta 120
atatgtattc tacttcttga cctaaatcta ggtttgatgt gtcgccttca aaattgctga 180
aatggaaaaa cacttcttta tcatgcgaaa tggctcgcgt aaaaccgaaa ccatccttca 240
aggctgctac aaatccttgg cacaactggc cgttgctcaa agactgacgt ccatttttgg 300
agacaccatt gogcaatgag gtgcttgatt gtgaagttga actactgctg cttgacgaga 360
cagttgaacc gttaaagctg tggtttgatg actggttact aatggcagtt actacaacat 420
ctgntgctat cagttcttta ttacgcttac ctgactaatg ttgaaatcaa ctttatcacc 480
cattctaggt tgccgatac                                     498
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<210> 188

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 188

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gcacactggt gctgttgtaa cattggaagt tgcaaaacag ggagctatatt atcatggtct 60
ggctacatta cttcaacaac cgagtccact tttgaatcaa ggccaagaa gaatgtcgga 120
acgcgatttg ccgtcacgtg ttagtgcaga gggctcgggt aaatctattc tgccatctag 180
taaatacagta ccagcactgc accatggtgg ttcttcgatg caggaaatgt cagtgcatac 240
agctaattta aaatctcata gcaccataa cttaacacaa aatacaaacac cacagcaaga 300
tcaagggtttt tatcaaaaacc taagtgtata tagaggaaat tcatcacagc caaattttaga 360
tcgtggatca ggtttaaggt cccacagaa tatggttcaa caaatgtgc atcagagttc 420
taggccagct tcagcatact ttcctaacca atctaggtgc caatcaaact tcaaccaacc 480
tgttctaatac ttagatctca aagcactaaa gatattgaaa cttttgcgtg aaatcttgnc 540
caacagtta                                     549
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<210> 189

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 189

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gacaacccta tcagtccagc gcagagttta tataaatagg gatgaaaata ggcaagttgc 60
ctccgtgatg caccattctg atctgaataa tttgttgaga gttggcagtt tgatattctt 120
aaatgtcggc caattgctgc cgcacagct gcagtcgttc cacacgccga attacatcta 180
tccgattggg tatcagattg tcagatttta ctggtcgcgt aggaggccga ataaacggtg 240
cagatatatt tgttcaatag ctgatgttgc tggacgtcca gaatttcgag tacgcgttca 300
agaacctcaa caggatgata ttgaactaag agatgctaca ccaagggctg tttggaatcg 360
aattctggag ccattggccg ctatgagaag ggaattgggc gattcagttc gtctgtttcc 420
caagtacgtc actggtgaag atttgtttgg acttactgag ccagctgttg ttcgagtact 480
cgaagtttac caggaattga gacattaacc gatatcgctt caagtatgga aggaccctt 540
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549

<210> 190

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 190

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gattggttca cttacattca gaaatttttg gaacagaggg cgaaggtaaa ccagctatgg 180
ctcatcgtga tatcaaata aagaatattc ttgtgagagt aaatggaaca tgtgttatag 240
ctgatttttg tttagcagtt acacatacac aatctacagg agctctagat gttgcatcta 300
atccaagagt tggaactaga cggatatatg ctctgaggt tcttgatgaa agcatcaaca 360
tgcaatgctt cgaagccttc aggcgcgcgc atatctacgc tctgggtcct gtctatggga 420
ggtcgctaac agaactcttt cgaatggcat tgtgaagaat taggccacct tactacgacg 480
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<210> 191

<211> 492

<212> DNA

<213> Ctenocephalides felis

<400> 191

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ggttaccaag cttggatcat tggattgtt gaaaaaggaa atcgcacagc aagaataatt 180
gacaaaccta gagttattga agttccagca aaagattaga atgataatga tatgattatt 240
taattacaga atgaaataaa ggggtgtatgt ctgtgtcaac attatgctag ttaaacaatg 300
gcatctcatt cctgctatct gcaatgcttc aatatttttt tgaaacaaat tgttctatta 360
atgcaaatgt agattttaag aatatatata gataagaatt attgttttaa gagtaatttt 420
gaatcatgaa gaaatttctt gattttttcaa ttcttaataa agtcaaaagt aaaaaaaaaa 480
aaaaaaaaaa aa 492

<210> 192

<211> 479

<212> DNA

<213> Ctenocephalides felis

<400> 192

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tggctctggg gcttcttgat tactcctaaa accattttgt ctacaagctt ttggctcatt 180
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ttctttgcac gotttgttctt ttgccttttg aaataatcat cattgatgtg ttctggtaat 300
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 cgcaatgggc atgcattgat taagaangga cctgtaacaa gtaacaatcc agagtccaac 420
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<210> 193

<211> 528

<212> DNA

<213> Ctenocephalides felis

<400> 193

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 acatggaccc agaacaagag gcacgaagac gtagtcataa aaatgcatat gatgaagatg 180
 atgagggagg acctggagca aacagagttc aatgtgccac gagttaaatc gtagtaactt 240
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 tgagttttat gtcattctatc atatttatca tattgatact tggttagggt tttacattgc 360
 acaattattt gtgactttgn aattacacac gatnttatgc tccacngtaa cggatgggac 420
 acccaantgg nctaanggta ccattttttc ntttttagat agacaatctt tattttttgt 480
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<210> 194

<211> 370

<212> DNA

<213> Ctenocephalides felis

<400> 194

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 ctatgttgac attaatatct ttattaactc ctctgtgcagc ttgagagaat gttagtttca 180
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 cagttttaaa tcctgcatca ccaaattatt tgtgaaatag ttcttcaggg tcgattgtcg 300
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<210> 195

<211> 343

<212> DNA

<213> Ctenocephalides felis

<400> 195

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 ttggggagta ggagtcgctg tcggggctcg tgtctgoggt gcagacggtc ctggtgtatg 180
 tgaatgtgga tgcgtgcctg attgaatata aaaatttgta gcagtggaaa ctgcacatga 240

aggcgatgat ccatgccttt gatgtggact cggcagagga tgctgagctg tgggaatact 300
accttgattt gacatcctat gttgtatcac agaactcatc ggt 343

<210> 196
<211> 749
<212> DNA
<213> Ctenocephalides felis

<400> 196
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ggtttaatac gccgatttaa aaacagacat cttatacaaa attaaaatgg ctgctgntaa 180
attatagaat atcttttgat ttaaacaaaa tctaaatagt acataaaaact ggacattact 240
tccattatat atatagatat atacatatgt atgttaatgt atatatacat aaatacatat 300
agaatcaaac aatatcacia actggttgatt tgaataagtt gctattcata aaattatgtt 360
ttcgcattta gtacattttt tgtatgtgct taagatgtat ataaacacat atttgntaat 420
tagtaaaaaat taacataagc ttgagacatt attaggtgct actaaaattg ataaatattt 480
acataaatta aaacaatttc aattcttata tgtgtggnag taacttcaaa atctgnggaa 540
atattgggta aattgggtact ggngctgnaaa taatttacta aacagaaatt atattgactc 600
ctatctggca ttggcttctt aaccatttta aatttaattt acttaatctc ttcagaaata 660
gcttaataag gngagacatc ccagganaat tgggtggataa atattggtaa aagctcaaca 720
ggaacattgn gacctgaatg gctggcaaa 749

<210> 197
<211> 210
<212> DNA
<213> Ctenocephalides felis

<400> 197
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ggtccgcaat tatgacgtaa cggatcatat gcaaaatttg cggggcaata atattgggtt 120
cctatactat tttcgtcaca ataataatag ctttgacaat catttatatt tggataaaat 180
ctcgatggtg acggacattt gaaaccttgt 210

<210> 198
<211> 185
<212> DNA
<213> Ctenocephalides felis

<400> 198
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ggtcataacc ctttctcctt catagacttg aattgttact gcaggctgat tgtctgcata 120
agtgtgaag gtttgtgttc ttttcatgga aattcttgca ttgcgttcaa taatcttagc 180
cattg 185

<210> 199
 <211> 223
 <212> DNA
 <213> Ctenocephalides felis

<400> 199
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 cccaaaggtta ttgttcatca tcattgtgct tagatgtgac cgtgacttta tcagcaacga 120
 gataggccga gtagaaacca acaccaaatt gaccaatcat actaatatcg gctccagctt 180
 gtaaggcttc catgaaggct ttagttccag acttcgcaat tgt 223

<210> 200
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 <212> DNA
 <213> Ctenocephalides felis

<400> 200
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 ccgccttcct ggggcctaata atatgggata agacattacc ctatgatgct gatctcaagt 120
 atgtggatct agatgagttc ctttctgaga atggaatccc tgtggatgga atgggtcaca 180
 gcgggtgatt ggggtccatg agtcacttag gtggccttagg aggatctcat aggtctgagg 240
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 aactaaagcc tcaacctatg atcaagaaaa gtagaaagca gtttg 465

<210> 201
 <211> 312
 <212> DNA
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<400> 201
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 tcctcgagta atgacacctt tttcaatttt tgaatagcag tcgtcctttg gattcatata 180
 aactttggtc ttctgtcttt ctgcatcttt gaaacattcg tttcttagtt ctggaagttt 240
 ttgaacgtta caaccggatt tctcgcaaca cattttttct cggttagtcg agtcacaact 300
 ttctttaacc gt 312

<210> 202
 <211> 209
 <212> DNA
 <213> Ctenocephalides felis

<400> 202

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 gggtagacatg tggtaggtgt gattatgggc tataggatcg taagctgccc taatgctctg 180
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<210> 203

<211> 293

<212> DNA

<213> Ctenocephalides felis

<400> 203

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 acaagagcaa gatttgaaga attatgctct gatttattcc gctctacttt acgcccagtt 120
 gaacaagcgt taagagatgc aaagttagac aaaggagcca tacatgatgt tgtattgggtg 180
 ggaggttcca caagaatacc taaaattcga tctctgctac aagaattctt tgcaggaaaag 240
 accttaaatt cttccataaa tccagatgaa gctgtggctt atgggtgctgc agt 293

<210> 204

<211> 377

<212> DNA

<213> Ctenocephalides felis

<400> 204

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 ggtattgatt tctgcaccaa aattacaaga gcaagatttg aagaattatg ctctgattta 180
 ttccgctcta ctttacgcc agttgaacaa gogttaagag atgcaaagtt agacaaagga 240
 gccatacatg atgttgatt ggtgggagg tccacaagaa tacctaaaat tcgatctctg 300
 ctacaagaat tctttgcagg aaagacctta aattcttcca taaatccaga tgaagctgtg 360
 gcttatgggtg ctgcagt 377

<210> 205

<211> 452

<212> DNA

<213> Ctenocephalides felis

<400> 205

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 agatgagtat caccggcagt tgctctgact tcaaataagag atccttcac aattgttaaa 120
 acagatacat caaatgtgcc tccaccgagg tcaaataatta acacattcct ttctccttgt 180
 aggtgtttat ctaagccata tgccaaagca gcagctgttg gttcgtttat aacccttaaa 240
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 taagcaggaa cagtaataac tgcattcttc actttctctc caagatagtt ttcagctgtt 360
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ttcttgtatt caacttcaat tttaggtggt gt

452

<210> 206

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 206

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tcctgacgca tcaccagaac ttaacttacg tttttttgta ggttcttcag acccgtagt 120
agcagattga gaagcctctt gttcatcccc cggttctttc ttaatactgn aatctacgta 180
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tgcggtatc aaagacttct tttgtgatgc cttaggtcct aagccccatt ttctgggata 300
tgtatntcgc tccattatca cacgttttaa tttagcacag actccatggt cgcattgacat 360
cattgttgct gnggtcatta gagcgattgc taatgcaata gcttctccct tagtagtaac 420
aataacaatt tcctgattca tctcgattcc atcttcatac ctcaagacgc cggnaacata 480
actttngacc gnnacaaaca 500

<210> 207

<211> 264

<212> DNA

<213> Ctenocephalides felis

<400> 207

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aaagatcaat ccaatggctc cgatggagaa aaatcttcct ttacatttgc agctggtttc 180
agtatacaaa tattgacctt ctatatcttc tgattttttt aaaagtgggt gttcttggtt 240
gccttctgat ggtgggtgtg ttgt 264

<210> 208

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 208

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aacttcagaa accaaatcag caactctagc ctgacttgtc tgtgaaccag nttgtccagg 120
tgtgttagca gaactttgaa tgataagatt ttggttgga gcaagactct gtccacacat 180
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tgcaaactct ctgttacaaa cactgcatac aaatggnttt tctcctgnat gttttctcat 360
atgcaatgna agatctgtag ttcttgata acctttacca cagattttgc aaaaatttgt 420
catttgacca gtatgtctcc gcataatggac ggntaaatta cttcttgact gnaactttta 480
ccacaaacac tgnataat 498

<210> 209
 <211> 470
 <212> DNA
 <213> Ctenocephalides felis

<400> 209
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 cataattaaa taaacttttt gtcaaaaact acagtaaaaa taataaaaac atttcatata 180
 aatgtaaaca aaattgatga tcattgataa ttcttggtta atgtgctttt ttaaagcaaa 240
 tttatttaca tattaaacat ctgtgaattt tgataattta tctcgtagca tcatgttttc 300
 tttcttcatt cgctcaagct ctggcggaag accaatattc tccttctcca agtatcctgc 360
 acgtaaggct atttgatttt ctttcatgcg tcgagcatct cgagatcgct tggctgccat 420
 gttattcttt ctctctagc ccaatcttat catccttcaa attatcaggt 470

<210> 210
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 210
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 naattacata atgattacna cttacaact attcttaaatt tctagtcaga tatcagnat 120
 ataataaata cttaagcttt tataagaaaa aatgcatcac tagataattt tttcagccct 180
 tattcgatta attttaatgg ctttggttaa tcaacttctt ctatcggttg cccttgccct 240
 ccaccaaagc ctccggcttg ctgccacaa gtttggtgctt gtgctccact tgaattggct 300
 tgatgtagct tcatcataag cggcgtaaa atctgttga actctttctc ttttggttca 360
 tattcatggc attctgcttg gggattctga tctatccaag anaatatatc atcacatgcc 420
 ttgcgngctg gttcacaatc ttgctgngga agcctgcttc cacatcggcc agagcttggt 480
 ttacttgnaa gcatatctc 500

<210> 211
 <211> 263
 <212> DNA
 <213> Ctenocephalides felis

<400> 211
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 atatgaccag gccagtgta gtgccctggt tcatattcaa atttcacagg tgtgctcaca 120
 tgtggagcta aaggaggagc cagagatctg agatgatttc cattagagga tgggtggactg 180
 ttttggtctt ggaagtatct tctggcaaac atatggtggt tcttctgagc aacaggaggc 240
 tggcgcgagg atatcgaggc ggt 263

<210> 212
 <211> 244
 <212> DNA
 <213> *Ctenocephalides felis*

<400> 212
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 cctacaatgt gataatgtaa tccgaggaaa ctcatctacc agtcgagagt tttgttctac 180
 cttttgtatg aacaaatatt aaaaaaagaa tgataagaat ctcataaatt taccgcgttac 240
 gagt 244

<210> 213
 <211> 418
 <212> DNA
 <213> *Ctenocephalides felis*

<400> 213
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 atcagcaaaa ccaacaattt aataatcagc tgaatcagca attgaataat caacaaaattc 120
 agcaatataa taatcagaat caacaattaa ataatcagca aaaccagcaa ataaatagta 180
 atcagataaa tcaacaacaa aataatcagc atgttaaacac acaacaacaa aatataatctc 240
 aaggaagtaa gcaagtaggc cagggcaatc aaattccaca ggtgcagcaa cagcaggtgc 300
 cgaccatgta gcttctgtga atcttaacaa taatattcca cataaatctg gggaaattca 360
 aaacagtgtg tagacagtat acaactcctg agactctcta ttccaagcaa gaccccggt 418

<210> 214
 <211> 498
 <212> DNA
 <213> *Ctenocephalides felis*

<400> 214
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 gaaataaaat cgtaaaagaa aatccttcaa ttgatttttc atctatatca aaaaaattag 120
 gtgaactttg ggcaaatgtg cctaattggag agaagtataa ttggcgctga agggctaaac 180
 gtatggctat gaaagtagcg agagatgaag aaataaaaac atctgataat aaagcacaat 240
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 agaaacttga tatagaagat ttagaagtga tgcctaattc ccaacaaaat tctgataatt 360
 taatgttgag ccccaaatca tcagcaatga gcagcggttt atcatctcaa ggcatgtata 420
 aggtaacagg aagttcccca attgacatag ctgcttatct aaagttactt ggcgagaggt 480
 tgagtattat tggnggac 498

<210> 215
 <211> 398
 <212> DNA

<213> Ctenocephalides felis

<400> 215

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cctgctgaat ccaagaaaga agaaaagaaa gaggaatctg agtctgaaga tgatgacatg 180
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tttatatgaa tatttacata ttcaagtctg tttgtgatta ttatctgtaa atacttgtct 300
gaactttgcg cagttctgtg gcaatttaca agattttatt tgtaagcata actttgtata 360
ataaaatatg gatgaggata aaaaaaaaaa aaaaaaaaaa 398
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<210> 216

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 216

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gattaacaga ggaaaagcta cgtgttttag taaaacaatg taacaaatgc ccgaaatgta 180
atgaaatttg tctagaggat tttcccggtg ttcaatgtag tttgaaccac agactttgca 240
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aggtaaaactg caaatatgcc agtgacggat gcaaaatctc aaaaaagaag gacaaaatta 420
gatttcacga atcggaatgt gtgtttcaac cacaagaatg tctggaaaat tctactgttta 480
tttaattgta ctggcgggta tttcaacgca tgctaccttt gtgagaacat cattaaatgg 540
aacacatga 549
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<210> 217

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 217

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gattcgatgt acgggcgcaa tcatcacact cggagattgc agagagcttc aactgctgca 120
cttctcgaaa acaccaacga aaggttgccg gtggcgagcg actgcagcac aggccttagc 180
gtgcgttcgt ccagctcgaa cccgttgcaa gccagcgcga gcactagtgc tactatgatg 240
gcttcagacc gagtgcccag tccgcctctg caggaggtca acacaccgt agctgagaac 300
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aacgacaaat taaagtgggt tctacgtgta aatccaaaag ggctagatga agaaagtaaa 480
gactcctcta ctgattacta cttgatctgt acaaactctga agtcggccaa ttaattctcg 540
atttaatgc 549
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<210> 218
 <211> 547
 <212> DNA
 <213> Ctenocephalides felis

<400> 218
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 ggaaaaattc cgacggctat aaacattcca ttacgtgaat tggaaaatgc tctcaagaac 180
 atgtctcctg aagaattcaa aaccaaatc ggaagagata aaccaacatt cgatactgaa 240
 atcattttta gttgccgttc cggaaaacga gcaaaggaag ctatggaaac agcattggga 300
 ttgtgttaca agaaatcaag atactacgaa ggtagctttt tagaatggag cagcaagcag 360
 aagaaacagt gaaattgcag ggtaaatcaa atattttata tgatacacat attatttaca 420
 gatatgatca aactaagtat tcttgngng ntatattagc atattgatat tttcttacga 480
 aatgttctta agatgattta aaaatattgt gaataaattg ttacttttag attnncctaa 540
 taaaata 547

<210> 219
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 219
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 agtataatgg cattaatgaa tgggtggagaa ttattttatt atgaaataga taaatgtgag 120
 tttggaacat catgggatgg aaagccaacc aaaaaaattg ggggaggtcg aaatggaaga 180
 ataagcatat caccatctaa tactacaacc acttttagctt tttatgtacc tgggtgcgcaa 240
 gctcagccat cgacttgcaa attatttgca taccctaata tcagtcaacc agtagcttca 300
 aaaagctttt tccaggctga cagggttgat tttttgtgga ataatcgtgg aacaaatcta 360
 cttcttctaa cagcaactga tgttgaccaa actgggtgctt catattatgg aaaacaatct 420
 ttgcagtata tgagttgcaa gggtgatact gnttggtcag tgccaaagaa gggctgtcat 480
 gcagttgcat ggagtcctaa gattagagtt tgngtggtac ggcattgcct gtaaaactcan 540
 tatcaatct 549

<210> 220
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 220
 gctntttaga cgttggaatc taaataatta aataatgata ccgaaaatat tattatttag 60
 taactaatatt acgaaaaaag tatttttttaa attaagtaac atgtcagcat cagcaagcag 120
 atcggaattt gcaatcacag aatctaacca acaagaagat gaatgtggac cacaattaat 180
 ttctaagata gagggtaatg gtattacaag tggggatatt aagaagttac aagaagctgg 240
 atactatact gtagaatcaa tagcattcgc accaaaaaag agtcttataa ctataaaagg 300
 aatatccgaa gctaaagctg ataaactatt agccgaagct gctaagcttg tgcctatggg 360

gtttacaaca gcaacagaat ttcacacaaa acgatcagaa ataatatgt taacaacagg 420
 ttcaaaggag ctagataaac tattgggcgg aggtttgaaa ctggatcaat aacggaagtt 480
 tttggtgaat ttcgtcaggg aaaacacatt atgcctacat tagctgnaat tgcagtacct 540
 atagatcaa 549

<210> 221

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 221

cttgaataga ttatttactt tgtccttaaa tttcaaagaa gtccctacgc gcaccaagat 60
 gggtagggag gacaaaagcca cctggaagtc aaactacttt actaagctcg tccaattggt 120
 ggatgaatac ccaaaatggt ttattgtggg agccgacaat gtgggttcca agcaaagca 180
 acaaattcgt atgtctttgc gtggaagcgc cgttgtcctt atgggcacaa acaccatgat 240
 gcgaaaagct atcaaaggtc atgttgagaa caaccaggct cttgaaaagc ttcttctca 300
 cattcgcgga aatgtaggat ttgtatttac tcgcggagat cttgttgata ttogtgataa 360
 attgttgga aacaaagtc gtgctccagc tcgtgctggt gccattgctc cattgccgtt 420
 attattccag ctcaaaatac tggcttagga cccgaaaaga catctttctt ccaagctctg 480
 ncatccaaca aaatttcaaa aggactattg aatcatcaat gatgtcatat cttaaaacct 540
 ggggataaa 549

<210> 222

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 222

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 ttcgttattt ttttttaagt ttttacgtga aagactttga ggagtgattg nttatcagca 120
 accaacanaa aatgggggtcc gagatgaaaa gtacatgcta caaatgcaat cgcgtangac 180
 actttgccag agaatgcacc caaggaggcg gaggtatggg aggtggcccg gaccgcgatg 240
 gcggtcacag ggactcgggc cgcgtgcgtg agaaatgcta caagtgtaat agatttgccc 300
 actttgccag agactgcaag gaggaggctg accgatgcta cagatgcaat ggcaactggac 360
 acattgctcg cgcttgtctg caaagcccg atgaccatct gttacaactg taacaagcca 420
 ggacacattg cgaggaattg tctgagagcc gtggtntgac tccagntagg tcaaccaacg 480
 tgttcaactg cacaaaactg gtcattttc cgtactgcca gaaatgctag acttgatgc 540
 tgtggaaagc 550

<210> 223

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 223

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caagttttgt ctgcaatata taaaaattta agatgggctaa agcaccagca gttgggtatag 60
atttgggtac tacgtactcc tgcgtgggtg ttttccaaca cggaaaagta gaaattattg 120
caaatgacca aggaaacagg actactcctt catatgtcgc gtttaccgat acagagcgctc 180
tcatcggaga cgccgccaag aatcaagtgg ccatgaaccc caataacaca atttttgatg 240
ccaaacgtct tattgggcgt aaattcgagg accaaacagt ccaagctgat atgaaacatt 300
ggcccttcga ggttgtcagc gatggaggta aacaaaaaat tagagtatcg taaaaaggag 360
aatccaaaac cttcttccct gaagaagtca gttccatggt gttgactaaa atgaaggaaa 420
ccgctgaagc ttacttaggc aaaactgtga ccaatgctgt cgtctgacct gctacttcaa 480
tgactcacia cgtcaagccc caaggattcg ggactatctc cgtctgatgg tgagatataa 540
cgccccccg                                     549

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<210> 224

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 224

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atacgatagg catttgtgcg agataattga ttattgtgtg aaatttatgt gaataaatct 60
gtgaaccgct ctgtaggtta cgatttgtgt tcaatgttaa aagaaatgtg caaacagtga 120
attcagatct gtacaagtga catttgcatt taacaaatat ggggaagaca tactgtcaat 180
cttgtcgcaa aaaatgttca ggtgaagttt tacgagtctc cgacaaatac tttcatactc 240
aatgcttcca gtgcgtgcag tgcaataaaa gtctcgccca agggggcttc tttcacaaag 300
acgataaata ttattgtaca ggagactatc aaaaattatt tgggtacaaaa tgcgcagtgt 360
gccagcaata tgttgaaggc gaagttgtat cagctctagg aaatacttac catcaaaaat 420
gtttcacatg tctagttgtc gtcaagctgt gccgccggag aaaaagtaac atacaccgga 480
aaagaagtcc tctgccagaa atggttcaaaa tccagcagac aagtcaacag tcacagaaag 540
tcnntagtca                                     550

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<210> 225

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 225

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ttttcgtgct tgtgttattt tgctacatgn ngctgtctgt ctggttgcac gaccatacct 60
acagtaaggg ctattcggag ttgacaaaaa actcagatgt cgaattcatt gtagaagaac 120
attattcgga atccgattcc gatgcatcgg tgcaactgca aagagataat aaaatcgggtt 180
cgtcgcaaag acaggaacaa catgtgataa taatccaaaa atctgctgat gacatacacc 240
gatgcgaact gtgcaataag acgtttaaat ttgcaacaaa tcttaaggct catatggtta 300
tgacacgcgg cgaacggccc tatgtctgtg ccatatgcag taaagctttt ccacgaattg 360
ccaccttgaa ccgacacatg caagtgcata ctgaatttaa accatttcag tgtgaatttt 420
gtgagaagag atttcgacaa gatgtnactt tgaagaacca tatcangact cataccggtg 480
agagattaat tggcatggtg tgaaaatctt ttaccgccta ccactctgaa cacattacga 540
tcacatgag                                     549

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<210> 226
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 226
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 agaagaagtg gaaaggatag ctaacgaaac taaagttgag gtggttgact acggtcaatt 120
 ttcaatatgg ccagggtgtga tagactctca tgtgcacgtc aacgaaccag gaagagaatc 180
 ctgggaagga tacaccacag ctactaaagc agcagcttgg ggcggaatta ccacaatagt 240
 agacatgcct ttgaattcca tcccacctac aactactgta gagaatttga gaacaaaagt 300
 gaattcagcc tgtggtaaaa cgcatgttga tgtcgctttc tggggaggcg tgattccttg 360
 caatgcgcac gaattgttgc cacttatcaa cgccggagta agaggattca aatgttttac 420
 aagtgaagt ggtgtcgatg agtttcaca ggttactaaa aatgatctgg aaatggctct 480
 aaaagagctc cagaaagc 498

<210> 227
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 227
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 actgccctcg acaatgctat tgttactggc cgtgaaacat ctaaactttt cacgtgatca 120
 acgatagccg aaaaataatc atccgatgcc gtaatctgag ttctaggttc atttgcaatg 180
 gaccacatta tcaactcctg gcgattctta tcacggcgaa ttagctcgct taacgaatc 240
 ttgtgcttag caagcaattt tgaattgtaa ttctctgtat ctacacttgg acattcattg 300
 attatcatga tgccgttttt gtccgccagg tccataactt cttccgaata aggataatgt 360
 gatgttctat atgagttggc cccaatccat tttattaagt tgtaatcttt tgcaataata 420
 gccaaatcga gaccttttca cgtatgtcag agtcttcatg tctacaaaaa cctcttagat 480
 ataatttcct gtgattaa 498

<210> 228
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 228
 atgtccttga agtcctcgag ccgatgcaag ggtcccatcc agaccgcata ttcctccggc 60
 aatctcggaa caaaaagcgt gcttcgacct gttccgacct caacggcccc gaacagatcg 120
 ggttccttag cgccaaacat gtattggaag taggattcct gtttaaaaat gtagcccaca 180
 tccgtgtcgt tccagctgac ctcttcacct ccttgcagaa ggataatgga tttttttaag 240
 gaacaacttt gtgccgataa agcatcgcac accttcttcc tgttctcggc gaataaactc 300
 atcggaaactt tcagcgtttt tgggtcccatg gagaagaccc gctgctgacc cgatccgttg 360
 gagcacttgc atgttgattc tgccattatt cttttaaaact ataacactaa gcgatttaca 420
 caatttaatt aacaataatt actaaaaaaa tttaaattaa cacatataac caaaaatttt 480

ctgtcactga acataagt

498

<210> 229

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 229

aacagttgca tgaactttgc ccttcaacgt cattcctaag tatggtgttt ctttattctt 60
gtgttggatt atgtcttttag tgaccttaaa ttcttcctcg ggatcccaaa ttactaaatc 120
agcatccaag ccttctttga tttgtccttt tatgccatcc agtccagtta atcgagcggc 180
cgcccgggca ggtacttgag ttccccatcc aatcaatggt actgcatcac ctttcttgat 240
aatatcagct tttcccaaag gaactgtgaa atcatcgaca ggaacttctt ctacagctgc 300
tctgtaaagc gtttttgggt ccagtagcaa acatggatct ttttctctga tcatggataa 360
tagaagacct ttggccatat ttggacctct tggatatgca atcttcaatc ctggagtatg 420
tgcaaaatat gcctcanggc tttgggaatg ataacaagcc ccgtgtccga ctgcatacaa 480
ngtgctcgca ctgttaaa 498

<210> 230

<211> 237

<212> DNA

<213> Ctenocephalides felis

<400> 230

ctgctgctgc accgggaaca cccctgata ctggcgtatc acaaaattga gaattatggt 60
ggttcaccaa ttgtttaact tctttggcaa ctgctggatc gattgtgctg gaatctaaga 120
acaatgtatc ttttttggca gatgccacca ttctttgta acagtctaact actatggcgt 180
tgtttggcaa cattgtgacc acaaagtcgg attttttggc aacttcggca gccgagg 237

<210> 231

<211> 171

<212> DNA

<213> Ctenocephalides felis

<400> 231

tgcttggaga aagtgcagtt ggaaaaagtt ctttgggtgt aagatttgtc aaggggcagt 60
ttcatgaata tcaagagtct actataggtg ctgcgttttt aactcaaact gtgtgtcttg 120
atgacacaac ggttaaattt gaaatttggg atacggctgg acaagaaagg t 171

<210> 232

<211> 315

<212> DNA

<213> Ctenocephalides felis

0976-1710

<210> 233

<212> DNA

<400> 233

<210> 234

<211> 330

<212> DNA

<400> 234

tggtgaagaa	tttgcggtc	gcctagccaa	agaaggaata	cgatataaat	taaagggaat	60
ggtagcagac	ccagaagaat	gtgatatgga	agaattgggt	agcatgaagt	ctataccaaa	120
ttcacttgcg	gtgttctgct	tagctacgta	tggtgaagga	gatccaacag	ataacgccat	180
ggagttcttc	gaatggatcc	aaaacggtga	cgccgatctc	acgggtctta	attatgccgt	240
ttttggactt	ggaaataaaa	cctacgaaca	ttacaatgaa	gttgcaattt	atgttgataa	300
acgattggaa	gagttgggag	caactagagt				330

<210> 235

<211> 417

<212> DNA

<213> Ctenocephalides felis

<400> 235

aattaaatgc	aattatatca	attctggcat	aaatccaagg	cactatttttg	actatttttct	60
aattgcaaaa	tatcaagtgt	ttaataatgc	aaaatttttct	taacagcatc	aaagcaacgc	120
catttgctcg	gtagataaaa	cggttcaaaag	acatgaggga	atggtgtatc	gtggccggtc	180
actctttgaa	taggagcctc	gagatgcaaa	aagcattcct	cctgaatgga	agcagccagt	240
tcagccccaa	agcctccagt	gtatggagct	tcatgtgcaa	taatgcaacg	accagtcttc	300
tttactgaat	tacaaacagt	atcataatcc	catggtagta	tcgaaacaag	atcgataact	360

tcacaattag catcaagttt ttctttttaca atctcagcta cttctcgtaa aacatgt 417

<210> 236

<211> 112

<212> DNA

<213> Ctenocephalides felis

<400> 236

ctgggtttgca agtcattcca ctcggacatg tttccaatgt tgtttctaag aaatcagngc 60
caatcgcaat gcaaaggttt gctgtctcac aatcctggca ctttatttct cc 112

<210> 237

<211> 325

<212> DNA

<213> Ctenocephalides felis

<400> 237

actgtagtct cgtgaaattt gtttattaaa atccgaaagt aatggataat tcaaaccacc 60
taagccgcct acttttctat ccatgttaat ccatgctaag tggctaaaat gtgaatccgt 120
tgagcatcca acaacctcag caccgatttc ccgaaactgg cctattgcat cactataagc 180
acgaatctcc gttggacaga caaaagtaaa atctaagggg tagaagaaca ataccaaata 240
tttgcccttta taatctgtta agctgatctt cttaaaatca ccattgacaa ctgccatacc 300
ttcaaaatga ggggctggac tttgt 325

<210> 238

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 238

tgaagccctn tgtgccggat gcgaggactg tgcaacggct taggtcctgc catgtttggt 60
gttatatattt atctttttca tgttgatttg aatgaagatc atcttgaaa taagatagaa 120
agaaatgaaa ctgctgggtgc agatgattat atacaattag ttcttgggcc tccatttgtt 180
tttgaggcat tgcttgtaat atgtgcactt ttagtagcag ttttcatacc agaagagcac 240
aaagatatata gccgacgttc ttctgggtgtt tcttttagata cacattttga aattgaacgt 300
ggcagaaaag ttgcaagtcc tctaccacca ttgattcata ccgattctgc acagctataa 360
acatcatata ccatcaccac ctatgcaata caattttatt aataatgaat aattaattta 420
aaactagttt gaaaccaat ggttaatgat aatgaaataa ccagatacaa attacagata 480
ttttaaatga gatgtcatc 500

<210> 239

<211> 252

<212> DNA

<213> Ctenocephalides felis

<400> 239

acgatacact catcccatTT tatacagaaa aacttgataa aatagcgaag gctaataatg 60
gccatttagc tcttggaaga ctaacttggg ccgactttgt tttcgccgga gttatcgaat 120
atatgagttt catatctgga acagatttcc ttggaaaata tgcaggattc aagagtgtct 180
ttaataatgt tgcaaatttg ccgaacgtga aggaatggat cgccaagagg ccaaaaactg 240
atttgtaatt gt 252

<210> 240

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 240

tttttttttt tttttttttt ttttttttta ttcaactcat caattacaac atcaacaata 60
gtattaacat cagccatagc accattacca gtatcaccgc acaccaaagt cttagaaatg 120
caaggcactt ntatataccc ccaatctttt aaagttttta cttgtggagc gggttatggg 180
tgatcccaca ttctcgtatt cattgctgga caaaacagga ggggcttgga tgtgttccag 240
gctcgaactg tgcagggttag gaggttgta cataaaccat ttgatatttt agccaaagt 300
ttggcgtcca acggtgcaat gcacatgatg tctgcccatt tagttaaatc gatgtgtaaa 360
acagggtcac cacgtttgtt ccaaaaatttc cattcatggg catctgtgta tattttgacg 420
gtttggggta tttctgattg gtcgaagaag tgttttgcatt attctgttac tataactgaa 480
tttctatatg tatattggag 500

<210> 241

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 241

aattttattg tatttatata cagataaaaa ttgatatcaa gttagataac aaaatataaa 60
atttaaaaat caaaacatat ttataaattt ttttgggtctt atttctagaa tttattcagc 120
attagaaaca ttttgaataa ttttcttgaa tattgtgata cctcgaagga aagtttctgt 180
atctaaatat tcatcatggg catgcagcaa tactggcgtg ttattcatgg gagaaaaacc 240
aaaagccggc agtccaattt ctcttatata tctgctatct gttgcagctg gaaaaacttg 300
tggttcaaga acaagtccca tttcatcagt agctctttta aatgctgtcc aaaatttatt 360
gctttcattc agttcagtgt ttgctatcag tgggttctttt tgtcaaattc tatttcaaca 420
tccttgccag cttcttttgca ccattttcgt atcttttctt ccaattcctt gtggctaagg 480
atggtgtaat acgtatat 498

<210> 242

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 242

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atagtcttgc ttacatgaaa atttgatttt ataaaaatat ttgctattat gcattagcaa 60
gtagcatttt tgcacataaa tcatacatat tttaccatat gttgggttata ttacattatt 120
aaagcgttaa ctccatacat ctgagctata tcttttctgt gcttccattt tcttgatgta 180
agcttgagct tgggtgtcatt catgttgcct ttggacataa tcactttcaa aactatgttg 240
cgaacatcac ttgccatagt ccgggcatct ccgcaaatat ataagtggcc attattttca 300
ccaatgacat tccataactc atcaccattt ctctctagta aatgagtgac atattccttt 360
tcagctttat cccttgagaa tgcaacatga attttaagag cgcccttatt aatatattct 420
tgaagntcct cttcatataa gtaatcttca gacttcttgc gcaaccaaag tataagatag 480
tatctccaac agttttatct

```

<210> 243

<211> 364

<212> DNA

<213> Ctenocephalides felis

<400> 243

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tttttttttt tttttttttt ttttgggagt aaagcacttt taatgcctgn tttctttagt 60
ncttctatta agtctccaga ttgatgcatt tgcaacatga tgtcacaacc ccctacaaat 120
tctccagaaa tataaacttg tggaatagtc ggccaattgg agaaatcctt aataccttgt 180
cttaaaacat catccttcaa tacgtcatga ctctcatatt ccacaccgtg catcctcata 240
atltgaacca ctgcattgct gaaaccacat ttgggggctt caggaacacc cttcatgaaa 300
actaccactt ttttgtcttt aacaagcttg tttattctat ctgagatcgc tgttgtgctg 360
cagt

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<210> 244

<211> 535

<212> DNA

<213> Ctenocephalides felis

<400> 244

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rchsnclamt ydnachcksm cratndatst randsncatt tgtcttcaaa ctgtttggag 60
atgacagtta ctcgacatt ctgaggtata aattcatcaa caattgactc tataagttaa 120
gggtcccagt gtgtcattag cgaaggaccg caaagaacct cttcaaattt aaaatgcata 180
agattcttga ctagataaac aacataactt cttgggttgtt ctttatctct gaacttaaag 240
ttcatatcgn taattgcctt tgattcatca aatatccatt tttgtggtgt ttcttttttc 300
agcaaattaa tatactgaaa aactagtctg actatatcat caacatggtt taagccctct 360
tctgttaaat ctgcatctag tttgaagaaa ccaaattccc tctctgaac agcaccgcaa 420
gataagcttg aactccaacc acgtgctttc aaacatgata agagactgcc gggctccctca 480
tgcccaaaaa gatgacctaa ataatttctt ggtgcagatt ttctaaaagg ctcaa 535

```

<210> 245

<211> 497

<212> DNA

<213> Ctenocephalides felis

<400> 245

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ccgactgcac ctgcttctca caattatgat ggtgggtttcc aaaccaaatt gatgcacaaa 60
gacttaggct tggcctccgg agtggcatca gcaaccttga caccaattcc tttgggaact 120
ttggcacatc aacttttcac aactgtcatc gcccatggtc ttggggacaa agatttctcc 180
ataatttacg acttcatcca ggaacaagga aagaagaagg cataaattga aaaataaaaa 240
aaaaattgga tactgttgaa ccagaaccag aaccaatttt ctcctaaact aacataatat 300
ggtgcctttg attaaatcaa taccaatggg aatagaaaat ttaaaaaaaa ttccagagat 360
ccaaaattaa ttaatccatt agagtgcctt cgataaaatc agtgccaatt gatgcaaatt 420
caaaatttaa atatgttttt caggataaaa taaaaaaatt actngttata aaaaaaaaaa 480
aaaaaaaaaa aaaaaaa 497
```

<210> 246

<211> 306

<212> DNA

<213> Ctenocephalides felis

<400> 246

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ggaaagagtt tggagagctg gatctccggc gatnecatcag gagactacaa gaaagttctt 60
ctggacgctg gtcaattaat taaataacaa aaacaaacaa taataggata aactcactta 120
aatgcaaaat cagtgttaatt aaatccatcg atcaatatta ataataatat ataataaaac 180
acaacacata atcagataaa ggacantttt gttaatcgag tagaaaattg aatcantttt 240
ctattccaac antttatttt tattatgtgt tgtgttttta attgttagtc tttttgcaca 300
aaaagt 306
```

<210> 247

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 247

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attctggctt ggactacaca atggaaaggt ctgcaagagc tatcatgaag accgcaatga 60
aattcaattt gggattggac ttgagaacag cagcatatgt aaactctatt gaaaagatct 120
tcacaactta tgctgaagcc ggttttagcct ttttaagatta attatagcat tttacttata 180
gataacgata ccagtgaaaa atcattacat caataagctc atagtgcaaa gttccttgcc 240
agtttaattt gttttacata cttaaatcta ttaatctgta catgaaaaaa tcaactcatta 300
gaacataatg taaatgttat aatatttgca caatcaaagt aataatgtaa gcacgcaata 360
tgtgaagaac gtgaatggta ataatcttta tacatattatt catttaatat aaatgaataa 420
atgtgtaagt ttgaattatg gtactttaat atgnattcaa gcataaattt cagcgtgata 480
attttagttc gcgcgtcg 498
```

<210> 248

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 248

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 gttgacatac ttcaacgtta aggctttggc tgaaccattg cgcttggtgt tgtcttatgg 120
 aggagccgat tttgaagacg tcagggttga gaaggaaaac tggccagcag ttaaaaacac 180
 attcccattc ggacaagtcc cagtttttga aatcgacggg aaacaaataa accaaaagctt 240
 ggcaattgct cggatatctt gcaacaatt caacttggga ggcaaagatg ccttagaaga 300
 tttggaaatt gatgccatcg ttgattcaat gaacgatttc agactaaagg ctgctgtcgt 360
 tatttatgaa caagatgaag cagtgaagc caagaaagtc gaacaattga ccaaagaagt 420
 agtaccattc tactttgaaa aattcgaggc tatcgccaaa aagacaatgg catttagctt 480
 tgggaaaatt ncctgggcag attcgtgctg ctgtcaattc gaacatggac ttatggccga 540
 ctgttattc 549

<210> 249

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 249

ttattatttt gttatatggt cttgatgatt cttttggtat tctgggttctt tctgganccg 60
 tgatgtttac gtaatatata ccaaaacgct ctgtgaatcc acgaagccat tcaaaattgt 120
 ctataatgct ccatagggca tagcctttta cattgcagtt atcaataatt atggctttga 180
 gcatttcatt caagtaacta caaatgtaat gaactcnatc atgatcatcc aattgaccat 240
 gatctgagta tccgttttcg gtaactatta tttcaattcc aggggtattca ttttgaaccc 300
 attttaaaag ttttcgaaat ccttctggaa caacttttaa ccaagatgat gctgcaactgg 360
 gccatgaggg gtccgattct aattttactt tctgatcagt ataccaggtg ttcggctttc 420
 ctgaaattgc attggatgct aggcgagatg tataatgggt taatccaaga aaatcagcaa 480
 gtgcctttta tatgatca 498

<210> 250

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 250

ttccgatctt tngtttatga caccatatca tctcgagaag ttacaggaac tgcaagatat 60
 gatatgatgc agttgttaat tcaagctaaa aaaggaactc ttcaagacga tgatttaggg 120
 gtaactgctg cacgaaataa agaattaaca ggcatgata taacatccca agctttantt 180
 ttctcataa ctggagtaat aacttcact tcaacaatgg gtttcggggc ctatgaaata 240
 gcaaacaacg aagaaattca gaaaaattg atagaggaag tagatgaggt tagaaagaag 300
 cataaagggtg aattatctta tgagataatt gataagatgg attatttagg cagagtaata 360
 tcagaaactt tgcggaaatg gccgccggga attattgcta ggaatttgtt gcaaccttat 420
 acaatcacgg ataataaaaa tagaatcaca ttttaattgcg atccaggagc tgtnatatat 480
 gttcccacaa tagccatt 498

<210> 251
 <211> 175
 <212> DNA
 <213> Ctenocephalides felis

<400> 251
 cattctactt tgaaaaattc gaggctatcg ccaaaaagaa caatggacat ttagctttgg 60
 gaaaattgac ctgggcagat ttcgtgctgg ctgggtcaatt cgaagcatgg aactttatgg 120
 cccgcactga tttattcgcc aacaccccct cattgaaggc tggtatcaac aatgt 175

<210> 252
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 252
 ctttgacctt atatcatttt gcaccaagtt ttccgtcacg agcagcgctg ttaactatta 60
 gagcactaaa tcttaagggt gatataaaag aagtaaactt gtttgctaaa gagcaattta 120
 aaccagaatt tttgaagatt aaccacacaac atttgtgtcc aacattagat gacaatgggt 180
 ttgttctttg ggaaagtcgg gctatagcta cttacttggg ccaggcttat gggggtgaaa 240
 aatacagttc cttgtatcct caagctgcta aagaaaaagc agttgttgat cagagattat 300
 actttgatgc tggagtttta tttcctagaa ttcgagccat ttgctttcct attctatttt 360
 tgggagaaac tacgatttca caagacaaaa aagaccaact aaatgaagca tttggttatc 420
 tagatgggtt tcttgcnaaa caaagtgggt agctggagac aactttaccg tacagataat 480
 gcattctggc ttctgttcta gcatacaagc tgtggttcga tatttcnaat ccctctgtgc 540
 tctgggaag 549

<210> 253
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 253
 atanattaga aaaatgtag caagaccctt actgccacaa aatccaaaac aagccccttc 60
 acattctgaa tttgtgatca gtgaccgtgg gtatggcaaa gattttgtaa aattattaca 120
 tgttaaacga gatggagaaa cacatcatat tagagaattt gaagttggaa ctcatattgaa 180
 acttgcttcg gatgtagatt acctaaaggg tgacaatgtc gatatagtag ccacagactc 240
 tcaaaaaaat acagtgtacc ttttggtcta ccaacatggt gtgaataccc ccgaagaatt 300
 tggcttgta ttatgcagac actttttgca cacctacccc catgttctag aatgcagtgc 360
 cactgtggag atgtaccctt gggaaagaat taagggtagt ggtcaaccag aaaggcagca 420
 taagcatgct tttattttta acccttcggc agtcagacat tgtgtggtac acagaaaaaa 480
 tacgaactcc ggcgtcgaag ttgtttgaag gatctcgtgt ctcaaaacac gcatccgatt 540
 cctggntcg 549

<210> 254

<211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 254
 gaattattat catttgcatt cgctttactt ggcttgcata agtacgattg atttggtgct 60
 aattcgattc agttttgcat cagtcacagt caaagtcggt aataaaatat ggttactaaa 120
 gcagtttgcg ttttaaacgg ggaagttaag ggaaccattt acttcgatca aagcgggtcca 180
 gaagcacctg tcacactaac aggatgcgtt agtggtttaa gcaagggtga tcacgggtttc 240
 cacatccacg aattcgggtga cagcacaaat ggatgtattt cagccgggcc acattttaat 300
 cccacggta aagaccatgg aggacctgat tctgctatca gacatgtcgg cgacttggga 360
 aatctttagt ctgatgccga tggaaacgct aaagtgaaaa taaccgacag tcaaatattcc 420
 ttacaaggct tatgagcgtt ataggcagaa cattgggtgc atgctgatcc cgatgatctt 480
 ggcttangtg gcatgaactt acaagaccct ggnatgctgg actcgatggn tgngtgtatt 540
 ggattgcaa 549

<210> 255
 <211> 502
 <212> DNA
 <213> Ctenocephalides felis

<400> 255
 tgatgtttgt tttatgatgg atactcattg ataccgctaa taatcaaatt agcttgttga 60
 ttcagtcag ttcagtcgat tcatttgtcg gcctgtgtga ccttttattt ttcgatacat 120
 tgctacatat taaagattgt taacaatgcc agcctacaag ttaacttatt tcctgtgaa 180
 ggctctngct gaacctttac gtatgcta atctttatgga ggagaagatt ttgaagatta 240
 ccgattcaat cgtgaagatt ggccttcaat caaaccaact atgccttttg gtcaagtgcc 300
 agttcttgaa tgggatggcc gtaaaatgaa ccaaagtgtt gccttgtgtc gttacctagg 360
 aaagaaatac aatcttgcag gaagtactga tottgagaat cttgaaattg atgctattgt 420
 ggacacagtt catgatttta gagcaaagct agctgcagca cattacgaag cagatgagggc 480
 agtaaaaaaa aaaaaaaaaa aa 502

<210> 256
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 256
 gtttaagaag tagtagaaac agatttgta aagcagttac aaatggcacc tattggagaa 60
 ccagaatatg atcttgtggt tatcggagga ggctctggcg gattagcttg tgccaaagaa 120
 gcagtaaatt tgggagctaa agtagcagtc ttagactatg tagttccttc accacaagga 180
 acaaaatggg gcttgggtgg cacatgtgta aatgtgggat gcatacctaa aaaacttatg 240
 catcaagcat ctttacttgg agatgctata tttgattctt ccttttatgg atggaaattt 300
 gataatcctg agaacacaaa acatgattgg ttttcattaa cagaagctgt tcaaaatcat 360
 atcaaaagtg tcaactgggt cactagagta gatctacgag acaagaaaat cgaatatatt 420
 aatggctagg atacttttaa gatcaaaatc tatttatagct gattaaagaa taaaagtga 480

aaaatattgc tgcaaaaatt tgtatcgcag tggaggacgg ctactatccg atttcctgga 540
cactagagt 549

<210> 257
<211> 441
<212> DNA
<213> Ctenocephalides felis

<400> 257
catgcaccac tgtggcggtc ttgatgtgaa tcaaattcac tcgttaattc actttgggct 60
ccaaaggccc tcacagtcga caagccagct aacgatgccg caaggtgaga atatgcggga 120
cttcgggtta ttccttcaag acgtttaata ttttttgatg tttttaagta tattcttctc 180
acaaatatga aaactactcc aagaacgccg acagctatca aaaataatgg atttacagtt 240
gccgttaata ttaaagcgcc aactatagtc agtattatct gtgatgaatc aagcagggct 300
ttaggtaaaa attcatcaat agcgcccatg tcttttgaaa atctgttcat aatccgtcct 360
gaagggtttg tatcaaaaaa tcgcatagtt gtttgtaaaa ttcctttgaa catagaatca 420
tgtaatcmtt gagaaacccg t 441

<210> 258
<211> 438
<212> DNA
<213> Ctenocephalides felis

<400> 258
aaggcgcat aacacagaac gataatgctt aggatatcaa taaagtaaaa ttaacactaa 60
taatgtcgat tctaataaat catcagttcg aaatggacgg atccttgtcg atccttggtg 120
ccaccacgat agatgatgtt cctggcccag gcacgacatt ccacgttgat caaacgtccc 180
actgtaggtc ttttgaattg aacagcaact aatggactaa gataatctcg ttggtttctg 240
aatggataat aatatccagc aaatcccatg cttggataca tttcaactgg gcccaaattt 300
tctcgatcaa ctggattttc tcttgacac gaaacccaaa tttgttttct ctcatccggc 360
ttgagacttt gtatgtgatc cttcaattcc ataggcatat cttcaggcag cgtcgccaca 420
tcatcataat aatccggt 438

<210> 259
<211> 323
<212> DNA
<213> Ctenocephalides felis

<400> 259
catgcctgt gactgccacg acttctctgc tttcaactgac attgctgtcg ataatacctt 60
tgaccaatgt gtatttgtca gtgggcgaag atcttgccaa aacacgtaat ttaggccaca 120
ctttatccag cagatgttgt tggacatcac cgttgctgtc tctaatacgc ctattgaatt 180
cttttcttcc taaaatcaga aaatcttctt ggggtttcaa tattccacat ttcgtagcaa 240
tagaccttgc agtgtttata ttatcaccag ttaccatacg aacagttatt cctgcttttt 300
gacatttacg aatagcatca ggt 323

<210> 260
 <211> 475
 <212> DNA
 <213> Ctenocephalides felis

<400> 260
 ggcagctcta ggaggatcaa tcatagacat gagtccaaca aatctaaggt tttcaattgg 60
 gaagttggga tcatcgctgt cgaatttgaa acctaagggg aatttgtctg taggcaacat 120
 gagatcacia aagcccaata cagcgtctcc aagaccgccc aattccagat atgcattatt 180
 gaaagcttct ttcattctct catccagtag tttttccttt cctccaatga agatgggtgga 240
 acatttttct aagattcttt caggagctcc tttcataacc attacatgac gggggctctga 300
 cgcattctta gtttcgtgaa tggaaacctg gtatttgttt gtggagttaa atggaatttc 360
 acagactttc ttatttcgtt ttcgaataga cataacatct cctaaagcca gttccataca 420
 tttgagaaga gcagcttcag atgcattcanc actgacttct tttttcaaga tgggt 475

<210> 261
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 261
 acaaaacaaa atttgatcac aagccttgcc actttttttg tatcacacag cctgaaaata 60
 tgctgattta gatatatgaa agataaatag ataatttttt tcattcatga taatctgcct 120
 tttttatata tagaatatta tttattaatt ttgattcgga atatggctta gattttaaac 180
 ttgtcacctt ttttacagtt catgctcaat ggctaaacat gttcatgtct ttttagattat 240
 ttttttcatat gcttattcag actttctatt ataacatgag tcacaaaccc ttttaggttc 300
 atgccaatcc cgttctggaa caggccttct tttcaaagag catttggttg aaacagcttg 360
 accgcaagca cgacaatggt gccttctttg atatgtttaa aacgtccgtt gctgggtctga 420
 tggtgcagcc atcattgggc ctgttgtatt taaatcacta ttaatgcttg tagtagtana 480
 attacattca gaatcggg 498

<210> 262
 <211> 279
 <212> DNA
 <213> Ctenocephalides felis

<400> 262
 ttcaagctat tgcaattact ttgtgtgttg ttattggtat aacactcttt acattacaaa 60
 acaaaactgga tttatcaatg cttccagcag cattgtttac tggactttgc tgtttattgg 120
 taggtggtat cattcagata ttcactcatt caaccatttt tgaattagtg ttatgcagtt 180
 ttggtgcact aatattcagc ttgtttttgc tttatgacac gcatgttatg atgacgacat 240
 tatcaccaga agagtatttt ttggccacaa ttaacttgt 279

<210> 263
 <211> 344
 <212> DNA
 <213> Ctenocephalides felis

<400> 263
 aacctaataaa taagcaattt acatacaaga tcgacacaag tcatgcaacg ggaaatattt 60
 taagaactta taaccgaaaa agtagtgggt tgcgaaatag gccactgtgg gcactcacca 120
 tttgccctgt attcgtcctg gactttgtag aattctgcta attccttacc cgagcacaaa 180
 ggagtatcga cttgggtagt ttcgttaaatt ctcgaataat cgacttcgta gcattgtctt 240
 tctttattgt agttgacgac tgggtcgaac ctgtggcccc acaatatttc cgtattaatg 300
 taacttgatc gagcttgtgt ggtctgtcct gtagattcaa tagt 344

<210> 264
 <211> 477
 <212> DNA
 <213> Ctenocephalides felis

<400> 264
 attaatttaa gaatctaatt gacatctttt gttcaacatc tgtgcgttcc aaagctttac 60
 aaaaatcatc aaatgagatc atttggtcac cattttgatc agcttctaga atagttcttt 120
 cggcaatgct tgacaattgt tcttcactta tatttgcacc caccatcatg tgtaaaatgg 180
 caagaagttc atcccgagat atcatgtcat cattgtccaa gtcatacatt ttgaatgcaa 240
 atctcaattt ttcttccctg ctgttcaatt tattttcccg attcttctta atgggtctga 300
 aatgtgctaa gacttgcata aactgtaaga aattcaccct gtcacatga ctttgagcaa 360
 aaaatgcatg gacaatccta tcacctaagg gatttattgc gagttcgggt attctcaaaa 420
 aatcatctcg tgaaagagtt ccacagtctc cacgatctag agatgtgaat cttgagt 477

<210> 265
 <211> 377
 <212> DNA
 <213> Ctenocephalides felis

<400> 265
 cnaactttgt cctgttatcc catgatcat gcgtctagca ttggctatgg ctagatttaa 60
 gtccctcttc anaacaaatc cnacaagata ctgagattct ctggaaacaa caactggata 120
 tccattgtgc tcagntnott tcantaaacc ttcaacatca tccacagtca tcgagtcttg 180
 agtgattaca cttaatgttt cattcctctt ggggttgcag acatctgcag ctaaagatgt 240
 atgtgcaaat tcatctttac tgccaagaat ggatatccat taagctgtat atgggcatca 300
 tatataccct gtctgcaaaa gcatcaccaa cccatttgga agccatagct gctgccatta 360
 agggcacgat ataacgt 377

<210> 266
 <211> 222
 <212> DNA

<213> Ctenocephalides felis

<400> 266

tttcttttagt ggtgcactgt agatatccac tttgatcagc gcacacttga tctgggctac 60
aggattcctt aaccggatct gtcctatctt ccggacaata ctgcatttcg ggtgaactgc 120
acgaattcac gcaactaaat tttacttttt tacatttttg ctcgggtttc ggtacaaaat 180
gctatacagt tacatgtcct gcacagccta aggtgcttcc gt 222

<210> 267

<211> 209

<212> DNA

<213> Ctenocephalides felis

<400> 267

cnaaagaggn ttcaggaagc tcttcttcgt cncctgattt tggancccgga gttgggttcaa 60
ccaattcacc aggatcgtga atctaataaa catgaagaac aattcaacaa gcaccatnat 120
nacaagcanc acaaagctga ttatatgaat cacatgagag tcaccgacac ttcngcaatc 180
atggctgggt cttttgctgt gatagcggg 209

<210> 268

<211> 178

<212> DNA

<213> Ctenocephalides felis

<400> 268

aaccaactag agctaagaaa aaagccagcg atagcataga actgctatgt tcccctccaa 60
ataccactgt tgttttatca tataaaaatg ccatangtat ggagctaata catccaatca 120
ccatcaatat atatatatat atgaagagtc ttttatcctt cctgggtaaa gtttctgt 178

<210> 269

<211> 238

<212> DNA

<213> Ctenocephalides felis

<400> 269

tttgttttac tttatgtgtt atataaaaaa atattatggt tgaacacagg ctcgcaaata 60
tgataaggca ttttaagaatt ttacaattta gattttttta aatccatgaa tatatttggt 120
ctaatacaaaa ttattcattt tacgcttaat tttattgggt gaactaatag atagatagat 180
aaaagatata gagttaatat aaaaatgaag aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 238

<210> 270

<211> 326

<212> DNA

<213> Ctenocephalides felis

[illegible]

<212> DNA

<213> Ctenocephalides felis

<400> 273

ggcaaaagga tctgccaaac ctgcaagccg gcaagaaaga tagttcgaaa cgatccaatt 60
ccagcgatga agcgacgcat gtaaatacata ccggggaatg ggcgaggccg cgcagcgagt 120
cggcgggcga ccctgacgac ggctgcgga acacgaccga ctcgaggagga acgtacgtca 180
aacgcacggg gttagcgta tttctgtgtt acgcctcatg cggaggagtt cgcgagtgg 240
gcgtagcttg gtggcactca ggcagagagg aatactatga accagatccg gaagaaccgt 300
cagatcctgg atacgcgact ccggtctcta tcgagacgcc gttgcagagc tcagtgtcga 360
gatgcacttc cctgaatgtg atacgcgacc catacatgac gacaacggaa gggcgaacct 420
cgcgctgccg ccgacttacc tttcacgcc tcgtcgcgca actactcaag attcggttta 480
caccatctga tcaggctccc ggggaccaga caaagacgga caagatcgca cccttcataa 540
aatgatatc 549

<210> 274

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 274

ggctcttggc cgaagaggct gttaacgatg ataacagtgt ggtggctttg tctcaagcta 60
aaatggacga actgcagcta ttcagaggcg atacagtatt attaaaaggc aaacgcagga 120
aggagacagt ttgcatcggt ctctctgatg atacttgccc cgatgaaaaa atccgtatga 180
acagagttgt acgtaacaac ttgcgtgtcc gcttgtctga tgttgtttct gtgcagcctt 240
gtccagacgt gaagtatgga aagcgaattc atgtgtgcc cattgatgat tctgttgaag 300
gcctaacagg aaatctgttc gaggtctacc tcaagcccta cttcttagaa gcctatcggc 360
caattcacia ggacgacaca tttattgtcc gtggcggtat gagagcaata gaattcaaag 420
tagtcgaaac agatctgctt cttattgatc gtggctctgc acagtcattc attgcgaagg 480
ggatccaatc aagcgtgagg aagagaagag ctcnatgctg cggtatgatg atattgtgg 540
gagaaacat 549

<210> 275

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 275

ttgacaagtt tcgatttggc tagttcttgt acttaatatg gaatcaatct catctgaact 60
gactgaacca caaacaatt ctaattcatt taccgttgat caaatagaaa ttgacatatt 120
gccactata tatgatatac tacgaagtgt tgaaagagat ccacatgata gcgctggcaa 180
aaccagagaa tcacaagatt gcagtgtgaa ggtattagac ttacaaaaga agttagaaaa 240
aattcgaagt caagttactc agctacctgg aattgattat aataaagagg aacaacttca 300
atatttagaa acacttagga aacaattaaa acttaagcaa gagcttttgc acaatacag 360
gactatgtac acatttgatt caatgaaaat ataaattggt taaaatgcct ctgcgatctc 420
tcatgaatta tttgctgaat aacgacgttt agttcagaag ttgctgaatc ttatccagtc 480

gaagagctgg cagttagcca tttcgctatg atagatcaaa atcaatttag ggacacactg 540
agaagctgg 549

<210> 276

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 276

ggctcgatat cgctggaaaa actttattat cgatgtgatt tatcaatggt ttcgtgagaa 60
tattctatatt gctttgacga aaacaaaaaa ctgattagtt tattaaataa atagtatatg 120
ttaatatttg ctgattggcg atgacggcag agaaagcggg cttttccgac agtcttctga 180
gtcggacggg agagcaggtc cacagaccaa catttcgctc tcatgccaaa gactgtgcta 240
gtgcttggtg caccagaaaa accttagaaa ggcatctgcc tatagtaaatt tggttaccga 300
aatacacctg ggaaaaatta ggcagagatg ccattgcagg tttgacagta ggtttgacag 360
caataccaca aggtattgca tatgctgtag ttgcaggact agaacctcag tatggtttat 420
atgctggttt catgggatgt tctgtgtacat attcctagga ggatgcaaag atgtgacata 480
ggcccacggn catatggctc tatgggtgcac gctatgtcaa gactgggcct gatttgcaat 540
ctgcccttt 549

<210> 277

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 277

aaagtgatgc aacaattatt ttcaaaatac aaaagtgtta aaaaatgggc gttaaaaata 60
tatatttata ctgcattctg atatgcctgc tacattatgc atcttatacc aaaactgaat 120
ctattaccaa caattctttg gaagaattgt acacaaacac ttctgccaaa acagattcca 180
ttactctttt atcaaaaacc agtctaccgc ctgatcaaaa tgccacgatt gaaaatcctg 240
atccagtgtc tcttgaaaag ggctccgctg aacaagaaca acacagctcg atgtctatat 300
tcttcgtgct ttgtgtgctg gctttaggga ttcttttaatt tcatttcatg ttacaaacag 360
ggtttcagta ttacctgaa agtattgttg tagttttctt aggtgcttta atcggttga 420
taattaattt aatgtcgtct aaaaatattg caaattggag aatgaagaac cttttcacc 480
acagcgtttt cttagtgtc tccgctataa tattgaatcc ggtatattgc ataaggnatt 540
ttttcaaat 549

<210> 278

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 278

cttgcttaga aaaccatacg gaagaaccaa acctctcata tctcgtagca tgatgaaaaa 60
tatacttggg caatctgtat atcaactaac agttatattc acactgcttt ttgttggtga 120

taagctctta gacattgact caggaagagg agcagactac ggttcattgc caactcaaca 180
 ttttacagta atttttaatg cttttgtact aatgacttta tttaatgaat ttaatgctcg 240
 taagattcat ggacagcgtg atgtttttga aggcatTTTT acaaatccaa ttttttacac 300
 tatttggtgta ggaaccgctg ttgcaaatgt tgtcattgta caatacggag atctggcatt 360
 ttcaacaaaa gggctgaatc tcgagcaatg gcttgggtgct gttttcggct tggtcactat 420
 tatggggaca aattgtaccc agtnctacaa gaaagattcc taaaattctt cgtagtntac 480
 ttnttatttg atacacttca atgcaagaat aactagttta gttctantca taagaatgca 540
 natttagtg 549

<210> 279

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 279

aattcttgtg tgtagaataa aaaacatatt tgaaacgttc atataataaa aagtgcaca 60
 tgtcagatga aatgcaagaa aacggaacta ttaatgggtga agtgccagaa attgaactta 120
 tcattaaggc atccaccata gatggtcgac gttaaaggagc ttgtttattt tgtcaagaat 180
 attttatgga tttgtacctg ctagcagaac ttaaaactat cagttaaag gttacaacag 240
 tagacatgca aaaacctcca ccggatttcc gtacaaattt tgaagcgacg ccgccgccaa 300
 ttctaatega caatggcctg ccgtgctaga aaacgacaaa atcgaacgct acatcatgaa 360
 gagtgtccct ggaggacaca atctttttgt tcaggataaa gaagtggcaa cactcatcga 420
 gaatttgtct cttaaattgaa ntggtttagt caaaaaggat gcgtaaaaag caatagtctg 480
 tgaccctga ggaaaatcaa cgccatttgg gcggcgcgga cgagattcta cggcgaccca 540
 tgtntgntc 549

<210> 280

<211> 269

<212> DNA

<213> Ctenocephalides felis

<400> 280

agatctacta atgccgcgtt taccactgtc acagcaattc cgcaaaccag caaccacaaa 60
 tataaatatg atgctattgt taaatgttca ataaatgcac aaattattcc acaaatccc 120
 catgagacca tcacgaatac aagaattgga agctttccca cagagttaat aatagcacct 180
 attatgggaa atccaatcgc atatccagct tccaacatta aagaatgcat aaatgcctgt 240
 tottocattg tgtctttaca ctoggtcgt 269

<210> 281

<211> 489

<212> DNA

<213> Ctenocephalides felis

<400> 281

catcaaatat tgaaaggaat cgatcatggt caaatgcctg gaaaagttag cagaaaagcc 60

caagagttga ttagaaaact ctgtagacct gcacctgcgg agagactagg atatcaaaaa 120
aatggattgc aggatgttaa aaaccattca tgggtattcat cagtttcatt cgactgggtg 180
agtctcaaat ctcaagaaat gcctgcgccca ctgggtccgca cagtagaaaa ttcaacagat 240
atgagaaaact ttgacaaatt cccgaagaac agagaatttc cacctgatga attatcaggt 300
ttcgatataa actttttaaaa acactaattt gcacacctga taatgttaca taaaatctac 360
gtggctgcag cgctgatata agtaattggt attataaata cagatgtcat tcttgaatat 420
aagaaattat ttatatattt gtaacgataa tattgaaata aattgtttta tatttcgata 480
atataaaaa 489

<210> 282

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 282

aacatgccct cagcgatttc cttanaaata cgatacatta atgattttatc taaatgatca 60
agtcccttga gatagtttaa angacttcct ccttttacgt aacttgtaat cgtccaaatt 120
tcttcagaan tgggtgatat accgaaaaaa catgacaaac gatgatgatc tagtggtttc 180
atgatcatag cttccgattt aattatatct aatgaattca cagataaat gcttatttta 240
tgaactgtca catcgatttt cttctttttc catagtgtt gcgaaacagg attataagat 300
cctctactca agtttagactt anactcaata tcttcaactg gtataattat ttcacacca 360
tgactattat aatcgctctg cttagncaa angatttgtc aatttaatgc ccactgtatc 420
cancgggtta tgtntgtnnn ttncacacaa gcgcangcat actggggaaa actatgtnga 480
attcantaga gtaccgtc 498

<210> 283

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 283

atcttttagca ccaacattcg attccaacca caattgatta agaccgcaat cactcaaadc 60
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gcctgataac aaaagtttgt ttaaactttt actattttta aatattctag tatcgagttt 180
gttgatttta ttattactca aatctaagct gattaaattg cgcatatgcc agaaaatatt 240
atatttttaa tctttgatcg agttctgagc taaattcagt tgagccatgg aaggcatttc 300
agcaaagtga tgtttgtcta agctaagtaa tccgcaattt actgcttcaa acatataagt 360
ggtaaacgat gacaaatttg aatgaaatct aggcaaattc atgagattcg gggtgttaga 420
aattttaata acatccaaat gatcattatt ttggaagacg ttgtcaggta agaaagtaag 480
tagattatgt gtcaagtc 498

<210> 284

<211> 129

<212> DNA

<213> Ctenocephalides felis

<400> 284

atcgatcttt ggcggctaaa catatcttgc tgagcgaagc cggccgtata gaaatatgtg 60
gctttaagga aatgagagtt cticctgagg gccaaaatta tataaaagaa aatctcgaca 120
atcctaagt 129

<210> 285

<211> 424

<212> DNA

<213> Ctenocephalides felis

<400> 285

gtaaacaatcc atacatttag ggcagtagga ttttaccata gcctctccag gcacatcaga 60
aagacctaata ggcagcatag gctgactatc gcagtaaaact ctagggaat atccgaagtc 120
tccagattgg tatttttcta tcatttgagc tatacctcta ttgttataaa tataatctggc 180
gtgaattaga ccatataaca tctctgcagc ttgttctatt gcatctgact gatttggatt 240
atcatctatt tcatcatcag gtttaaactc aatatcatat ccaaggcttg tctatatcgt 300
ggaatttgct cattaaggcc tgtagattg aatttatcct gtatatagtc tcatccacc 360
tcgcaaaaga attcatttcc tcgtagacca caaaaccaag atatccatga gacctcctca 420
gaac 424

<210> 286

<211> 204

<212> DNA

<213> Ctenocephalides felis

<400> 286

ggacggccga ctgctccgaa ttatgctcgg cacgtgttcg attcaaatga tcccgtacg 60
ttcgacatcc aaatgataaa cactatctaa tcaagtgatg ttgtttaatt aagcaagtgt 120
tagttcgaat tcatttttgt gttttgtgta tattataata aatggacccc gaaattcctc 180
tgaaaggtgt gactccgggt ttgt 204

<210> 287

<211> 446

<212> DNA

<213> Ctenocephalides felis

<400> 287

acacgcacga gcactataat cactttgaaa cttcatacac cgattgatgt catgtcgatg 60
tgttggtaaat gtcacgacag atcacagtag cagcaggaag gttatagggt gtcagattg 120
tatactgggt cttgacacat gtattactga tgtttcactt ggttttctgt ggcaattgat 180
gggtgggttac ggctgtcgtt acagcattct gcaactgtgg tctgatgag cttgaggact 240
ctatctgctt tcggtgactt atttccaaat ctgctaaaacg tttccataat tcatctcgtt 300
cgcgctcgcg tttcttttct ttctgcgttc tcctttataa cttgcagtca attcatcaaa 360
tagtttacta ttcattttcca tgaatgnntt taagacatta taaactaaag cacaattgct 420

gattccaagc tcttttgaaa tgcggt

446

<210> 288

<211> 268

<212> DNA

<213> *Ctenocephalides felis*

<400> 288

ccacaggaaa ggaggtagct atcaaaatta ttgacaaaac acagctcaat cctggttcgc 60
ttcaaaaact tttccgagag gtgcgcatca tgaaaatgtt ggatcaccca aatattgtaa 120
aactgtttca agtgattgag acagaaaaaa ctttatatct agtaatggaa tatgcatcag 180
gtggtgaagt gtttgattat cttgttcttc atggtaggat gaaagaaaag gaagctagag 240
ccaaatttag gcaaattgtt agcgtctg 268

<210> 289

<211> 465

<212> DNA

<213> *Ctenocephalides felis*

<400> 289

cggcaaatgt ccaagctttt ttgcctggat ccacacgttt ggcaaatcca aagtcgacca 60
gtttgatgta tccttttagta tctagcatga gattttcagg ttttaaatca cggaagatca 120
tatttttgtc gtgtaaatat tcgaaagctt caataacaca agcgggtata aatctagaag 180
ttttttcatc aaaacatttt gctttatgca acgccgtcca gacatcacct cccagacatg 240
cttccattag gaaatacaag tatttggtat ctttatatgt gttgtataat ctgcatataa 300
atgggctgtc acaactagcc ataacatgct tctcattgta aacgtgctgc tgttgttgct 360
gctgaacaat atcaactttc tggagacatt ttagagcaaa tgtcttgtct ggtgtggatg 420
gatgactgac ccagttccac gcgaccaa atccgaacgcc caaag 465

<210> 290

<211> 294

<212> DNA

<213> *Ctenocephalides felis*

<400> 290

ctatatctg gctttctaaa tactccatgc cgtcaataat ctgccgacaa tatgtaggga 60
aaagtcttct gtctataata atattctctt tctctcttaa ataatgcaac aaaatgtagt 120
ctagtttttc agtaatgatg taatgttttg gagtttcgat ccaggcaaga acttgctgta 180
tatttggtatg tttcagtgat ttacttaaat ttatctctct tttaaaattt tcatgttctt 240
gactttccac gccatctatt gtggttggtta ccaagagtgg ctttctcgaa atgt 294

<210> 291

<211> 203

<212> DNA

<213> Ctenocephalides felis

<400> 291

gaaaagcagc aggatttggt gttttccgac gactgtctga cacaattcaa tatctactac 60
tacaagcttc ttacgcaaatt tttcattgga gtccacaaa aggccattta aaacgcaacg 120
aaaatgaatt tgatgcgga cttcgagaaa cattagagga aacaggcttt tgcaaaagcg 180
atattaaaat atttaaagat tgt 203

<210> 292

<211> 283

<212> DNA

<213> Ctenocephalides felis

<400> 292

catcactgag aagaactctt cggctacgga atatcttcat tggaggcgcg ttgttggtgc 60
acgcagcatt aacaaggctt ttgcaattca gcataatgac cagaagaaaa atacaggtag 120
tgcttttcat tttgattcag taatagatta cttcttgaga tagataataa tactgtggag 180
aagtaacctt cacatgaaat aggcttgggt cttataatta ctggctttgt tctggatatt 240
agaaatctga tcacaaaatt ttattaagtt attattatgt taa 283

<210> 293

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 293

agnnttgctg annaanccct nannaagctt cntcgagngc nngaattcgg cttagcgtgg 60
tcgcggggccg gggnacaaagt atcaaaccatg ggctacgggg gaccgtaga ttccaacat 120
tctacaagg ggcncnttct ttantaaaat atcatccaga ttttcaaaac gaccgatgga 180
ttngcccggg tnaaaaccag gcacacctgg aactaacgct ttagtttagcg gnggagngg 240
cacaatgcag gatgaccagg tcaaaccgag gnccttgagg gtcacatggn ccatgaagac 300
cacaagcagt agggacccn atgagataat gtntgaaatt cgaagagttt tggatgcaa 360
tgatgcatg tatgaacaac gtgaaagggn tttactactt tgtgtcacgg agatctatca 420
cggatagttt agtacaatgg gaaatagaag tctgnaaatt ggcaaacctt cttggatgg 480
aggtcgattc aaacgcattt 500

<210> 294

<211> 302

<212> DNA

<213> Ctenocephalides felis

<400> 294

actgtcatca tcgcttaact ccagtaatat attatctgat ttcagatctc tatgtgcaat 60
tccataagct gataaatggg caatcgcttc caaaagttga gcaaacaaaa ttatggacgt 120
cctcattgat attttattac tactaagata atcatgaaga ctgcaatcgt atctcttcat 180

taacaaaaac aatgacatat ttctaccata accatcactg ttaattcttt gtggtaaagc 240
 tgatggaaac aaactggctg ctagtggttaa accagttgga attctatcag caaacacgct 300
 gt 302

<210> 295
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 295
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 attcattngt agaaatngag atgttaaaat tgactccaat cctnttaata atatcggctg 120
 ctaccctact tccaaattct gaacaagttt gtaaagtatt gtcctgcaag aatttatata 180
 agaagccagc gaggaatgca tcacctgcac ctgttgatn tttataagc gccgatggaa 240
 ttttctcgat ttcaacagac cattttgcaa atcttttcat cttgttggtg aaatatggta 300
 actggttttg aagcatcagt tgctacaact atcttacttt tgaagctagt gcatttcttc 360
 tttagaggct tgtaaacttt aatcaaagtc tccataacac tatccaagtt attgaaatta 420
 taagccttgc ctaattctaa aaattgctca gcggnttcca aagactacat ctgcagattc 480
 tgctagcgtt tttacatt 498

<210> 296
 <211> 227
 <212> DNA
 <213> Ctenocephalides felis

<400> 296
 cactacctat tgatcctgct atgtttccaa cgtggcctgc aaaaagtga cttggaacaa 60
 gacgtgcact tgccagtagt cctaaaccac cttcaggagg tgaccagttt aaaacattgg 120
 gggaaggtga aggagccgat gcgtattggg gtgaacgagc atctttgttg gatacaagaa 180
 acattccaat ggggtgcaggc ttctcactca agttttaata aattcgt 227

<210> 297
 <211> 452
 <212> DNA
 <213> Ctenocephalides felis

<400> 297
 ggcacgaata tttgtcttca taatcattac ccgctcttgt atattgagtt ttagggatca 60
 acttcttcac ataattctca tttataaaac gttggaacaa aactccaaat gttgttttcg 120
 ctttcgaatg tcgaaatagt gcataaaatt catcgaagtc caaaaaccgt gaatgattag 180
 agtcacccaa actcataaga tactgagtcg cagattctgg aaactcatta ttatattcac 240
 ttctctctac aattctttgt aattctctga cagatatcaa gttatcatta tctgtgtcat 300
 actttcaaaa tacaattaat tattgttaac gtgcatacat aaactttgat ttattataat 360
 tttaccttcc cgaataggta tctgatatat tgatcagttt ccctcaacgg tatattatat 420
 tccatctcta attgtgatat cttctctga gt 452

<210> 298
 <211> 138
 <212> DNA
 <213> Ctenocephalides felis

<400> 298
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 agagatttat taagagctat aaggaataag aagcatcatt atcatcaact ctcacctgat 120
 gcattgaaag ttttgggt 138

<210> 299
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 299
 aatcattctc tctgatatgt gtatcaaaat ggcgctatca actggccaaa ttgatgtcct 60
 tcacaatctg cacaaaatta gagaacaaag ggccaacttg gtggacaaca ctaatcaatt 120
 caaaatagtt catatgcttg ttttggaatg cttatttgga gagtctacaa gtattccatg 180
 tgaacatttg ctaaaaactg tagccgaaat gaaaagtcgt aatgaaatgt tcaaaatgtg 240
 gaaaaaata gacgatgtcg catggaaaga tgacttcgtt aaaggaatag acagtgaacc 300
 atctcaagaa gatattgcga gaaaagagaa tagaaataaa attgtgccag gaagacgagg 360
 tcgtgtatct ttgtcaagat ttccattgac aaaagcagat tcggattata taaatgcaat 420
 atttgtagat ggatttcaaa caaaacgtca atttatcggt acgcattttt ctttacatca 480
 tacagttgct gatttctg 498

<210> 300
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 300
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 ataataatatt taacaattta taattcaatg ggtgttagaa ctgcatgcag gntatttaat 120
 taagaatggg cgcttattta tccaagcctg ttgtggaaaa gcattcgagc gatgaatcga 180
 ataacatatt aacttgtgca gntagtagca tgcanggatg gagaataact caagaggatg 240
 cacataacct gatattaaac ttgacaagg atacatcact ctttgctgtt tatgatgggc 300
 atgggggtgc cgaagtggct aaatactgtg ctgaaaagtt gcctgattcc atcaaggaaa 360
 ctcaagctta taaaaatggg gatntancac aaggctctaa agatgctttc cttagtnttg 420
 atgctccatt gcagaanaaa aagtcattga aatactcaaa aattatccac tttgataatg 480
 acattaacan gcaagtcagn tgaatggact gangatgacg gtattanatg atcctcagaa 540
 tctgngaag 549

<210> 301
 <211> 547
 <212> DNA
 <213> Ctenocephalides felis

<400> 301
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 ataagtgaat tttatacgaa taacttagaa ttatatTTTA ttttattgag tgcattgtgtg 120
 tggtcgagaa gtctcaaagg tcaatttgat aaaagtacaa gagtacctgc aagatttttg 180
 taaagaaatt atataataag tgTTTTatta atatatTTTA tacaatggct ttgaacaaat 240
 tgagtatcga gagtgtggat ttggaaggca agaaagtTct tatgagggtt gatttcaacg 300
 ttccgttaaa aaacgggtgt atcacgaaca atcaaagaat agtggcagct ttggatacga 360
 ttaagtgcgt ttgaataaaa atgctttgag tgttattctg atgagccatt taggacgtcc 420
 tgatggcttc taaaaaggaa tacagtttga gacctgtgcg aggaattgaa gaactattaa 480
 acagggatgt gcatttttg aagactgtgt gcccacaaat agacaagagt gcataatgca 540
 agcaagg 547

<210> 302
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 302
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 acagagccta ttccgaacga tgcaaccgat aaattttata cttggattat gaaaacattg 120
 ttagagtgggt taaaccagga acaaggattt tcatcgatga tggcttaatt agtgtcatag 180
 tgcaaagtgt agcaacaaat accttgattt gccaaattga aaatggtggc cttctaggaa 240
 gccgtaaagg tgtcaatcta ccaggagttg aagtogattt accagcactc tccgaaaaag 300
 acaagcaaga ccttcgtttt ggaattgagc acgacgttga tatgattttt gcttctttca 360
 ttcgagatgc caacgcttta gatgaaatca gagcagtatt aggagaaaga ggacgccgaa 420
 ttaaagttat ctctaaaata gaaaacaaac aaggagtagc taatgcagat gagatcatta 480
 gggcttccga tggttcatgg tgccgaggtg nttgggaata gaaatccgca gagaaattgt 540
 cttgacaaa 549

<210> 303
 <211> 547.
 <212> DNA
 <213> Ctenocephalides felis

<400> 303
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 atccaaattt cagccttgct acaatcagaa tgactgataa tagcgattta gatagacaaa 180
 ttgaacaatt aaaaagatgt gagattatta aagaagctga agtaaaggct ctttgtgcta 240
 aagccagaga aattttggta gaagaaagca atgttcaacg agttgattca cccgtcacag 300
 tttgtgggga tattcatgga cagttctatg atttgaagga gcttttcaaa gtgggtgggtg 360

atgttcccg aacaaactat ttgtttatgg gtgattttgt ggatagagga ttttacagt 420
 tggaaacatt tttattgttg ttagctttta aagttcgata tcctgatcga attcattaat 480
 aagaggaaat catgaatcaa gacaatacac aagtatatgg atttatgatg aatgcttaga 540
 aatatgg 547

<210> 304

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 304

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 ttggtatttc tttattggaa ttggcaactg gtagatttcc ttacaataca tggggaacac 120
 cttttgaaca actaaaacag gttgtgaaag atgatcctcc tcgtttacca gccggtgtat 180
 atagtgaaca atttgaaaac ttgatagaac aatgtttaca aaaacaattt gaacgtagac 240
 ccaattatca acagttattg cagcatgaat tttgtgtgac ccatcgagat aaaccaacag 300
 atgttgcac atttgtgaaa gatatactaa cgtttgatac agtacaataa atttgttctt 360
 actaatattt agtattaaac taataaatta taataatgta gttaacataa cttgttgctg 420
 ttagattttt tgaagttata atcctgaaac ttgcaagatt tgtttcaaata gtaaaattat 480
 atataaaaatc atattttaaca tcattttacat catatacatg atattttgtt aaataaacct 540
 caattctcg 549

<210> 305

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 305

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 tgtgtccgtg cccgaaaatt tcaggagat gagcggctta aaggacatcg ccaggcaact 120
 tgtgcaagaa gcaccaggca ataaattgaa cgtaattttg gcgggtggaa gcgacatgat 180
 gggcagcagc cgcaaccgag agtcggcggt ccaacgcgga gatggacaag atttggtagc 240
 agaatggctt cattcgagga ctagcttgaa ctcccagggc gtctatgtta atacgactgg 300
 tggacttgaa aaggcgaaaag tgaatgatg cgattacttg atgggtatat ttgcagcaga 360
 tcatttgccc tacaatgcag tgagggataa gggtcctaata ggaactccgt ctttagcaag 420
 gatgacaaaa caagcattag gaatattaca aaggccagat aaaggattcg tttaatggtg 480
 aaggaggcgt attgatcacg ccatcataaa attttnacaa ttagctcttg cgaactgctg 540
 aatttgca 549

<210> 306

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 306

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 ttgtccacaa agactctgct actacaccag agattgatac cattttctca aatggacgca 120
 atttaactat atcaactggc aaatacgctc gattttgcga tggatcagct gttgccaaaa 180
 ttggtgatac ttcagttatg gttacggctg tgtcaaaacc aaagtctcat aatggtggga 240
 attttcttcc acttgttggt gattacaaac aaaaatcagc tgcggcagga cgcattccta 300
 cgaatttctt aagaagagaa ctagggtccaa cagaaactga tatattaaca tccagggttaa 360
 tagatagatg cctcaggcca ttatttccac ctaactatct caatgaaacc caattagttt 420
 gtaattcgtt agccgtgatt caatatacaa tgctgatgtg ccagctatta atgctgttca 480
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<210> 307

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 307

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 cgtgttttga acttgcaagg ccgacaactg tatgggggca atgcacacca tcaagccgcc 120
 gtgacttctc ttgcttgggc tccatccgga gcttattttg ctctcggctc ttacaacgga 180
 attcgctgtg ggcacagcgc tgggtggtcg catgctttga ataaagccga aactggttct 240
 ctgtacagca ttgcatggtc acaagacgga actcgtattg cagcagcatg tgccaatgga 300
 catgttttat tcggaaatat tatagaaaag gaattgtgca aatacagcta taacattgtt 360
 ctaactacag ctagtacttt gtcagtgagc agtataattg atacaacaat aaatgaagtg 420
 cttgaattta cagatcgagt aacaaatttt gatataaact ctgagcatct gtggtcacta 480
 caccaactca atgcntatat ataaaattga cgattttattc acccacagtg ttgagttgaa 540
 ggatggtgta 550

<210> 308

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 308

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 tctttggctt actaatcaaa agtgatcgac ttctttcttg tagttttgta gtagtgttta 120
 aatcatttgt taataatgga aattgtgggt gatttcgagt ataacagcaa ggatttaata 180
 ggacatggag ccttcgctgt ggtcttttaa ggaaggcata gaaagaagac gcatcttggtg 240
 gtggcaatta aaagcataac aaaaaagtct ttggccaaat ctcaaaattt gttaggaaaag 300
 gaaatcaaga ttctcaagga acttactgaa ttgcaccacg aaaacgtagt cgccctcctg 360
 gactgcaaag aatctgctca caatgtatat ctgtaattg agtactgcaa tgggggtgat 420
 ctactgact atctcagtgc taaagccctt aagcgaagat caattagact tttcttgcca 480
 ttagcggcgc atgcganttn atgccaagc tcgactcgga ctgaaccgag attctctgcc 540
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<210> 309
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 <212> DNA
 <213> Ctenocephalides felis

<400> 309
 ttataaataa agaacaagaa ctgaaagaaa aatacaaaga tgatcaaccg attgaatgtc 60
 catactgggg cgggtatata gtaatacctc gatctattga gttctggcaa ggccaaagtg 120
 atcgcttaca tgatagaata aaattccgaa agttgcttcc aaatgaacaa atagatttga 180
 atttaacaca tgaagcagat aatggatggg tttacgaaag attatcacct taaacttaaa 240
 attatttata tttttatgca ggaaagccaa aataaaaata gttcaataat ttgaacttat 300
 aattatgt 308

<210> 310
 <211> 437
 <212> DNA
 <213> Ctenocephalides felis

<400> 310
 cacgattcaa tatcgacgat ttcaaaatth gctgcgttga ctttataaat tttataattc 60
 ggatttcggt taacgtaagt tgtaatactt cctccattga atgcaacatt aataggatgt 120
 gatgaattca tagaatcata gaaaatctta aattcgatcat tatgtgtgtg gccattgaat 180
 tgtcctgtta ttatatgcca aaatctttgg atgatgcgcc tatattctct gtcccaagta 240
 atgaagttag tgggttcacc aggaggaaca tgtcccaaaa tgtgcacttt ttcattagtt 300
 ctttctgctt ctaacagagt atcatgtaac cattgcaatt gctttttggg gaatgcagga 360
 tcatacagta accacaaatt ataaatatag gccacattat tattcaacgc tatgactcgt 420
 agtccaagtt taggtgt 437

<210> 311
 <211> 173
 <212> DNA
 <213> Ctenocephalides felis

<400> 311
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 ccgaaatgca gtattgtccg gaaataggag cagatccggt taaggaatcc ttagagcccag 120
 atcaagtgtg cgctgatcaa agtggatata tacagtgcac cactaaagaa agt 173

<210> 312
 <211> 337
 <212> DNA
 <213> Ctenocephalides felis

<400> 312
 cgtcaagtcc aatccaaaag tggaagcttt ttcaggaaag ttactaagag aggtgtcatt 60

tccaccagtg ggatcgagaa ataatcgcac aattagctgt gttcgtgccc tggaccaata 120
 tgtaaatggc caaggaggct atgccactct tgtcaatggg ggagttggct ggaaaaatgt 180
 aactttactc ctatcttctc agactggcaa aggatttaac ttcttagttg aaatttgggg 240
 atattagatt agaaatataa tgaaaatgtg aatatagaaa aaaaattaaa tataacaatag 300
 tattttagaa aaaaaaaaaa aaaaaaaaaa aaaaaaa 337

<210> 313

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 313

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 ctctttcaat cgcataact aagaacaaag gtttcttctc actcttgta tcctttgatg 120
 tcaacctcaa caatactttt tctggcatga gttcgttact ggcaaagctg acttgtttgt 180
 ctctgctggg gactgcacca ttggctggtg cagaagtatc gccaccacct gcacctaatt 240
 ctttcagttt accaaagggt agtgatctga tttcttgggc attcagtact aagtcgtaat 300
 ttctttctaa agtttgttta atttcagctc ccatcagcga gtccatacca agatcagaga 360
 gggtagcaga ggcctgtgta tttttggtgc ccttaagacc taatatattt gcaactgcat 420
 caactaaact aacacctcct gcaccagcac cagcgtctgc tttcctctta tcagctaata 480
 ccatggaggc caagacan 498

<210> 314

<211> 457

<212> DNA

<213> Ctenocephalides felis

<400> 314

tgnggttggc attatcanca accccaaaga caagcangtt gaaatgtctg tttcaaaaat 60
 aaactgcaca nngattttta gctgacccta taacacctgt aanaagattt acaanancct 120
 cnaaactcca tgcaacaaa aatggaatta cttgtgctac gaatacangg ggaatttggt 180
 atntgcattg gaaaatgagg aaaattttga ttccaaattt cngattgata catggaatag 240
 gcaanatggt aaatggggtg gaattacttg tgttttacag gatggagatg tgtttgaaaa 300
 agcgggagtg aatatcacag taatgactgg tgaactanaa cccaggcca ttcaacaaat 360
 gaaaagtcgt ggaaaacant tcatccantg aagggtggacc actanaattc nttgcggcan 420
 gtgttagtgc antaantcat cccaaaaatc ctcatgt 457

<210> 315

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 315

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 agaacaagat gcatatgctt tgaaatctca tacatatgct aaaaatgcac aggagaaagg 120

atatttcaca gacattgttc catttcaagt tccaggtgtg tcaaagatgg tagaaactga 180
 caatgggtatt cgtgtcacat cattagaaag tctggccaaa ttgaaactg cctttgtgaa 240
 accccatggc acaattacag ctgctaattgc atcattcttg actgatgggtg cttcagcttg 300
 cctcattatg actgaagcca aagccaagga attaggtttg acaccaaag cttatctaag 360
 agaatttttg tatgttgccc aagaccaggt cgaccagttg ctgcttgggt cctgcttatg 420
 ttacaccaa gatcttagaa cgtatgggtct gagttaaaag acatagatgt ctgggaaatg 480
 catgaagctt ttgctgggt 498

<210> 316

<211> 465

<212> DNA

<213> Ctenocephalides felis

<400> 316

cactcgtgtt cttttcccat cttcattttg actgccaac ataagtataa tgtctttatc 60
 ccctagattg ctgcttgaaa caacaactgt atgcacatga cggctatgaa accattctgt 120
 gcatttccat gcacgtcaa tggtatgaat tttgcaacca gtgagcaact ccacctcaaa 180
 ttgatttggg gtaacaatat cagccaatgg aataattagt tctctataaa ttggtaataa 240
 tgattctgga acatacattt ttccattatc acctaact ggatcgcaa cgtatgtcaa 300
 ttttggtatt ttttctctca attccttaac gacgttcgca attgttttaa gaaaatctgg 360
 attagctaca taaccggtta ataagtgact gtagacattg ataccattca atgctaacc 420
 ttctgccagc tctcctaatt ccttgctcgt tagaacttgc ctcgt 465

<210> 317

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 317

tttttttttt tttttttttt tttttttttt tcttgaatnc ataataaaat ttattattag 60
 ntnattataa aaaaaatact taaaaaatat attatatgct taaatngttt catgtagnca 120
 tatatttatt acatganctt tttaactaaa tctataangg gttgaatcaa ttcctccgtt 180
 gnagttncat tggtattaac aagancaaaa tcccagtttt cataattatn taaatcacat 240
 tcanangcaa catcatcaac accttcngta aatttccaac ctcganattn tcgaatgcat 300
 ttactgcaat taattctaatt ngttataact ttagcaccat atttttcaat aaaccatttt 360
 atatctgngt tcttgccgat atcactaact atgcaaata gttttgaaat tgcttgcaa 420
 gccctttaca aaaataacca taatcttcat ttcaaactcg gtcgctccat tctatcat 480
 tttctgagct ttctttanat 500

<210> 318

<211> 585

<212> DNA

<213> Ctenocephalides felis

<400> 318

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nctgacaatt tatcttaata gaatagcaca agcaacattc gacaactttt caatggctgg 60
ggctctatttc gtgcatcgaa gtcgtttaaag gaaaattcgc ctactgccaa acatgaagaa 120
ctcatggcaa aagcatgggtg ttttgaggct tcagaacgcc tagaggcaaa tttaaaacat 180
gtagtaagcg gtaagcattt agatttatat accaaattag ctacaatagg caaaaattca 240
tgcgctgccca atggagttcc gcaaaataat ccattaaatt tgtaataaat attaatgatg 300
tgtaactaag cttaagttca ttttaatttat tttattgata aatactttaa ttttaacagaa 360
tgtaaatatt tcattttatg taaataatta gggggnattt gttatcaaga tcgtgcgcca 420
aataagcctt gtcatacaga ttattttcaa ttttgataat aagtaataca atgcgcatg 480
gtacattttg naatctgaaa tattgncaat ggctgatat atttaaatat aaaatgaaaa 540
aaattaaaaa ttaaannnnn nnnnnnnnnn nnnnnnnngg cttgg 585
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<210> 319

<211> 363

<212> DNA

<213> Ctenocephalides felis

<400> 319

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tcaccaaggg ctgcaattgc aaccocctaag ttttccactg gacttatatt tttgtcataa 120
ggtttctggc cccacatatg tgcaacactg ttcacaaaaa atgcaatatt taggggtcaaa 180
cagaacctaa aattaaaatt gacccaaaaa gaaaccata ggtcttcttg ccaaaaatac 240
caaggcgcca aaacoggtaa acctatggcc aatagggcaa atagagggat gtaaacctt 300
ttttgccaca tgactactgc atcggttcc aagtcactca tatcaacctg tttcctttta 360
agt 363
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<210> 320

<211> 223

<212> DNA

<213> Ctenocephalides felis

<400> 320

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ttcatcagaa gtgtttccac agtctggcca anttaagcta tacccttggc agctagttgt 60
gacgattctc cttaaattag atggactaaa tgagccatgt tcggtgctcc accaatgcct 120
atgctacgga atgcacgttt tgaaacttca tcgaaaatca taccctaaatt tgctgcaggg 180
tttttaaagt ctttttgtaa ttctttcaaa tgtgcaccag cgt 223
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<210> 321

<211> 337

<212> DNA

<213> Ctenocephalides felis

<400> 321

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ttttataagc agaaccacca ggtgaaagat aaacgttcca ggatcctgca ttattgaaaa 60
ctttcagaaa attaccagat aattttatgt gtatacaaaa cgtgtctgta tatgcagcag 120
cctggatgga agatggtaac ttttgtatta gtttggtaac ttttttcttt tcatctggtt 180
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gaaaattgga tcgttcatac acttttttga cgcgttgac aaaagtgaaa aaatcatcgt 240
aattattggt ttgcaataaa tcattcacta caaataaccc atgaatgctc agtggttaagt 300
tactgttgta actaacaaaa tctatgagag aaagtgt 337

<210> 322

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 322

gaaccaacaa attccatcta caaccaaatt taatattaaa atttgaaatc atttttaaaa 60
aatgatcgtc agaagtgttt tgggcctttg tgtcctggtt gggctcctgg tgtctgcaaa 120
agcagattta acagatgacg tcatggctag gatgcctgat gacttcagga gggagtattt 180
gtaccagaaa aagttgacag tgggtgatct gattgagcaa aatgggtacc cctgtgaaac 240
ccaccagggtg acaacagaag atggctacat cctgaccgtc tacagaattc ctcacaacag 300
aaacaacgac accattacca ggggagcagt cttcgtaatg cacggactcc tgtccagtgc 360
tgctgactgg gtcgtcctcg ggccacatca aggactacca tatttgcttt ccgaccaagg 420
ctacgatgtt tggctaggaa atgcaagagg caacacactg tcaggaatca cacacattga 480
gtgtgaagag tgggtgaatct ggaattagtg gaacgagatt gttatacgat ttgctgcatg 540
atcgatacgt 549

<210> 323

<211> 369

<212> DNA

<213> Ctenocephalides felis

<400> 323

ggatgtgatg tgtctaaagg ggaaactttg tctgaatata ttggtagtgg accaccacag 60
ggcacaggat tacatagata cgtttttctg ctctacaagc aaccggataa aataaaattt 120
gatgaattga gactgactaa cagaagtggc gataatcgtg ggcagttcag tattgcaaaa 180
tttgccatga aatataattt aggtcaacct attgctggaa atttatacca agctcaatgg 240
gatgattatg ttccagaact ctataaacag ttgggagctt agctggctaa aatatagttc 300
aataataata tgaacaatgt ttgaatttta ataaaactat tatttgttga taaaaaaaaa 360
aaaaaaaaa 369

<210> 324

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 324

gcatattatt tattttttata tatgtatatc cagctagata agttaaacat gcactcattg 60
agtttcatca tcttttagta gtggcatttc gtcttcttcc ccttcttgac gaattttgat 120
gtgggcattt ttgtcagttt gtgattgctg tgcttgtgta gaaccaacac tttttggtgg 180
atatggtatt ctgaacaatt gaattcggag atgatcacat atttctaagc agacttgtgc 240

acagtatctc atcagatcga agatggacaa agccaaacaa aggcagagaa cataatattc 300
 atttacaag ttgttgaaat actgatttag gaataataaa gatggtccta atagagccca 360
 gtctaaatat tccatttcac tttttgtcat atgcgcgacc actaatctgt ttgtgacctt 420
 tgcagctcca ttccaaaggc gagaatatac aaagcgggat gattctcaaa tatattgctg 480
 gactcttctg gcaaataatg aatgcaggaa tacaaccaa ctgaatggat tattggtaca 540
 aacctgtcc 549

<210> 325

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 325

gacaaatccg agaacttcga tgattacatg aaagccttag gtgtcagtct agtcacccgt 60
 aaattgggca accaagttag cccagtggta gagctgacta agaatggaga tacctatacc 120
 ttgtcatcca ctgacacctt caaaaattcc atcatcacat tcaaacttgg tgaagaattt 180
 gatgaagaga ctctgatgg ccgaaaggta aaatcggttag tcaccttgga tggtgataaa 240
 ctgactcatg aacaaaaggg agataagccc accaaaatag tccgtgagtt tggaccaact 300
 gaaatgaaag cagttatgac tgttgatgat gtggtctgca cgagaactta caaagcattg 360
 taatttcaac actacggttt tctatttttg ccttaagtta tatgcatact cgtatggaat 420
 ctgtttataat acagactaat tgactaatta tggcattgta ggatgctgct tgttcatctg 480
 ntaaagtact gtttaacttt tttgttttat cgaangatga aattaanctt aaaaaaaaaa 540
 aaaaaaact 549

<210> 326

<211> 298

<212> DNA

<213> Ctenocephalides felis

<400> 326

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 aaggatgtga caaattacct tgtccattag ttcgtggttag cacttctttg actgatgtta 120
 aatttactgt ccctgccgat tctgctactc tgaaaccaga ggtaaaagcc aaagttgccg 180
 gtgtcacccg tccttaccba ttacccccag agctaagtga tgcttgccaa tttcttaagg 240
 aaggatcatg ccctttgaaa aaagacgata aagtcacata caatctaaaa gttccagt 298

<210> 327

<211> 598

<212> DNA

<213> Ctenocephalides felis

<400> 327

gaaatcaata agacattatg aaactaataa acagtatgaa agtaataaac aatatgaagc 60
 tagtaaacia tacgaaggcc ataaacaatt tgaacctagt cgaccttttg aagctaataa 120
 acaattcgaa gctagtaaac aatttgaagc taacaaacia ttcgaagcta ataaacaatt 180

cgaagctaataa aaacaattcg aagctaataa acaattcgaa gctaataaac aattcgaagc 240
 taataaaciaa tttgaagcta gtaaacaata tgaagctaata aagcaatatg gagctaaciaa 300
 acaatatgaa gctaataaac aatatgaaag taataaaciaa tatgaaacca ataaacaata 360
 ccattcaatg agcgaacgct atcatgaatt tagcaaatca ggaggatatg gaggctcgaa 420
 tttcgatcaa aatcaggcan atgcaanaaa ctttganaga aacggaaaat ttgaaagcag 480
 cggaagctat caatatcaca ntgaacaaat ggcgagaaat ctactgattc aaataagcct 540
 tactcctaaa catatcgatg agctaataga aacggttatct gatagttcaa tgtactcg 598

<210> 328

<211> 221

<212> DNA

<213> Ctenocephalides felis

<400> 328

gaacaatata gataccaaaa tcattttgaa cgagatggaa cttgcgcaag agctcacatg 60
 gaatcttttag ttgatggtaa aataaaattc agacatgtca tggaagaaaaa tggaaaaaaa 120
 gttgaattta gtggacaact cagacgtaat gatgaacatt ccggtaatgg atatctgaga 180
 atcagttatg aagatacaaa tcgagaatca gattatatag t 221

<210> 329

<211> 489

<212> DNA

<213> Ctenocephalides felis

<400> 329

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 tgctcaattg gaactgactg aatagacgga attccttcaa tactttgact tccaattcca 120
 tctccaagaa ttttctctaa tttttgggtg aataaggaaac ttctaattga cgctgagtca 180
 gaatttttat ctctgagctt tacagaacta gatcctgtat tagttttatc agtttcgggt 240
 ttataacaat catcacattg agaattcacc agtcctgcag gatcaactat ttgaatattg 300
 tcattacagt gagctttatc atcgttgtct ttgaattctt catttttgat atcgatttca 360
 ttttttagttt cgggaaaatc tttcagcgct ccgtcacgta gtaagctaga ttcagtggaa 420
 gatattgaac tacttctaata tgatttaatt gatgagttat tgctttttga agagcttttt 480
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<210> 330

<211> 352

<212> DNA

<213> Ctenocephalides felis

<400> 330

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 cccattttct accaattaat cgttttagcat caaatacagt attttttgga ttcatacgcg 120
 cctggccctt agctgcgtct ccaaccaaac gttctgattc agtaaaagca acatagcttg 180
 gcgtgggtgcg atttccctga tcatttgcaa taatctccac ttttccctgc tgccatactc 240

cgacacagga gtatgtagtt cccaaatcta ttccaatagc tggcattttt ttctatgtta 300
gactgtttga ttgttaatca aaattaaatc caattgaact cgaactttgc gt 352

<210> 331
<211> 265
<212> DNA
<213> Ctenocephalides felis

<400> 331
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tcctagatct tgaaacttcg aggctgcac tggatcggtt ttattcttat caggatgcaa 120
ttcctttgct tgtttcctat aagctttcct aatttcattt aacgtcgac tacgagatac 180
ttttaatatt gaatagaaat ctggtccagc gctggctagt aaaaaataaa tacttaagtt 240
aactaacact aaataacaca gtttg 265

<210> 332
<211> 498
<212> DNA
<213> Ctenocephalides felis

<400> 332
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tccaaaactt cagaagttgc ttccaggacga ccataatacc ctaacattgt agggccacgt 120
agatacatct caccttgccg atttgccct aaagtttctc ctgtagaagt atccacaatc 180
ttaagttcag tgttcattaa aacgtgtcca acagttcctg gtctatatc tgcgcaagtt 240
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gtcaaagtgt tttgcatagt ctgacactgt tgtggtgaca atttggaacc aacagcaaac 360
agcaacatta catctccaaa tggttctgca agttcttctt tatcttgtaa atacaaattc 420
atcagagaca attggtgaaga tgatagtagc atcaggcctg cttgtattcg cgcataattc 480
tcaataagtt tcttcggt 498

<210> 333
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 333
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aaatgggtggc tggaggggtt agctggatta tgtcaaatac taataactac gccaatggaa 180
ttgttgaaaa tacaaatgcg ggatgcagga cggatagctg ctcaaaaataa aaaagctgga 240
atagccactc ctaagatacc agctactgaa ttaacttttg gacttattag agacaaaggt 300
attttgggtc tatataaagg aactggtgcc actatgctgc gagatgtttc attttctgnt 360
gtttactttc cttgttcgc tactcttaat gcactgggtc caagaaaaag tgcggattct 420
aatgaancaa gtttttgng ctctnttat ctgctgcgct gttggatcaa tggcggcatt 480

agttgtcaat ccatttgacg

500

<210> 334

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 334

ctcctgcacg ctttcaaatt tcacactgat ctattaatac agncttgaat cacatacaga 60
ctcctcatat gtataatcac atataatgnt tcataagcct taattgaaat ggaattttaa 120
ttgaaatggg gatccatgat ggaagtgatg gaacggtgaa ccaccgccc ctctgtgatt 180
atttgcagat tctggatcta aaggatcttc accgttgtca aactgagctc ttttctcagg 240
atcagtaaga acctcttttag cagcagcaat atctataaat ttattctctg ctatcttctt 300
ttcatcatct ttgaaattat caggatgccca tttttgtgct gcttttcgat aagctttaat 360
gatctcttgc tttgtagctg ntctttttac acctagaaat ttataataan ctcttctctc 420
acttgntttg taaccctgag ccttcaaaaag cccatctttc gctctctgac atgctcattt 480
atttccaaaag ctgatttata 500

<210> 335

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 335

naagacgttt tgaaacctnc ntttaaacca tttgggttgg gggctggggg aanttttaag 60
gaaaccttn caaaaatggg cacctcaact ggtgcaaac gtttttggt tttnttgggn 120
ccgtggtctt tagacaaacg tgccagaggg cttttcacga aaaccaaggg gagggcattg 180
tcattcctga gaagggcgca agcaaaaagt tctcaagggc agagtattg cagttggccc 240
ggcaaagaaa ccaactggtg aacatgtgcc cctaggaatc aaaagtgggtg acatggtttg 300
ctgccgaatc cgaggcccaa aagttgagct cgaagagaac aagaattcct tattcaaaga 360
atccgatatn cttgccaagt tggatatcga cgaataaatt gccnaaaatt taccatcttt 420
cacaatttnc ccaacacaaa ctgnattcga agctgttgct tnttatnaaa gtagcaatgg 480
ttttntttg ngggtctctt 500

<210> 336

<211> 482

<212> DNA

<213> Ctenocephalides felis

<400> 336

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tttaataacg attttttact tttttataat atatatgtat tatattccct attatataat 120
acaatttatt ataaaattaa ctatctaata tatcccgtgt aattaattat tttaataacg 180
atttttttta cttttttataa tatatatgta ttatattccc tattatataa tacaatttat 240
tataaaatta actatctaata atatcccgtg taattaatta ttttaataac gattttttac 300

ttttttataa tatatatgta ttatatgtga aaaatgtaaa aaagtaaaat ttagttgcgt 360
gaattcgtgc agttcacccg aaatgcanta ttgccggaaa taggagcaga tcccggtaaa 420
gaatnctgta gccagacaa gtggcgctgt caaagtggat atctcagtc ccactaagaa 480
ag 482

<210> 337

<211> 418

<212> DNA

<213> Ctenocephalides felis

<400> 337

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tggttcatt ttttgaacaa ctccattgt tccaagaacc aatgatgtt catatgtttg 120
tgatggtgt aaattcggaa cttgtaatgg tgcaccaggt gccagaccaa agctgttttt 180
attcaactgt atggcaaaac cactcatagc ttgcattgct ttgttggtgt agctcatgtc 240
catgtaaatac tgtccacttc tcttgagaa tgttccatat atttccaaac ctttgcctt 300
ttcagctggc aaccacaatg cttttggtat aacaaaagg ccagctgat ccacagagaa 360
tatttctccc agaagtccag agttaccgat gttattaagt anaattgaca tctgatgt 418

<210> 338

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 338

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tggtgaattt gcgcgcctgc tgcttcttg gatgtggtag ccgttctcag gctccctctc 480
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<210> 339

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 339

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cagaattccg tgaagctttt gctttgtacg acaaagacgg agatggtgcg atatcagccg 180

ccgaattagg aactgtcatg agggctttgg gtcaaactcc ttccgaagcc gaacttaaag 240
gatacgtcaa ggataatagc gtggccatga ccgtagattt tccaacattt ttgacaatga 300
tggctcgtca gatgcaggaa ggcagcagtg ttgatgaaat ccgggaagcc ttccgggttt 360
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ttggagaacg cttaacagat aatgaggtgg cgcaatgatc cgagaagcag acgtagataa 480
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<210> 340

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 340

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agcccaaata agcaaattat atatagtcaa gtgaaaaccc aatttgattc gcatcatttc 360
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cacaaattgg ttatatggac tttcaagttg gtgatgaaca gctttaccg gtgtcgggga 480
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ttctcaatt 549

<210> 341

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 341

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ggattacgac cacccaatgc gtcttatgga ccaacatttt ggaatgggccc taaatcgtaa 180
tgatcttatt actaatctaa gggccactcc atcactcttc cgtggcggtt attacagacc 240
ttggagggaat gaaattactg ctgacgattc ttcattcaact atcgttgctg acaaagataa 300
attccaagtg acttttagacg ttcaacaatt caaaccaaaa gaaatcaccg taaaaacaaa 360
ggacaattgc gtaatcgtcg aaggcaaaca cgaagaaaaa caagatgaac acggatacat 420
ttcccgctcat tttgttcgac gatatgtctt gccagaaatc acgatgctgc cgatgtagta 480
tcgagtttgc ctcggatgga gtattgccat acagcgccaa gaaggccttc agtgagcaga 540
cgagtggcc 549

<210> 342

<211> 383

<212> DNA

<213> Ctenocephalides felis

<400> 342

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gtgcaaaaaa ggaacttggt actgcagaaa ttgaagaaat ttaatatagc ataatatatt 300
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<210> 343

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 343

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tttacagact coggagttaa tatcacgaaa ccactttgtg ttcgacttct cagtacgaca 180
gtgtcgggtca tttcaaacgc gcgttgtgtg tgtccatcta tcatttataa cgggggttcct 240
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ttgctcgtca agagcaccat ggtccagtcg ggacagcgca ggctgatata ccaatcagct 360
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caaaggtaca ctgctcttct caagacgata ggtcacgcag gtcacttacg tgtggatcga 480
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caaatggac 549

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<210> 344

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 344

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cctaatacaa tcattctttc accactattc tgaatttgta aatgctagtg tctggtcagc 180
tcctgtcttg cttattgtaa ttggcgcaat tgcgtttggt atcgcatctt tcggatgctg 240
tggtgctgtg aaggagagca attgcatgat ctataccttt gcagtatttc tcattgggtat 300
atttatattg gaattatctg ctggaatagc tggctatata aagcatggtg aacttgctga 360
aaccttgga aataatttta ataccagtat gaattcctat attgatgata agcaaacacg 420
tgcaacatgg gacgttatcc aggaagatct cgattgctgt ggtatgaatg gccaaagtgc 480
tggaaaaaag tttttaataa tgaccaattc caaaatcctg tgtgatgagc tccaaagtga 540
tttgaatgc 549

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<210> 345
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 345
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 aatatttttac aagccgtccg agttcattgt gttcattoga gctgtgtag cattgcactt 180
 caattcctca agtttcatac ataattcaaa atggctcgta ctaagcaaac tgctcgtaag 240
 tcaaccggag gaaaagctcc acgaaaacaa ttagccacaa aggctgcgcg taaaagtgt 300
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 gaaatccgtc gttatcagaa atctactgaa ttgtgatccg taaattacct ttccaacggt 420
 ggtgagagaa attnccagga tttcaagaca gatttgcgtt ttcaatcact gctattgcgc 480
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<210> 346
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 <213> Ctenocephalides felis

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 gggttcaacc catctgctga agaggctgat gaaggaactg aaacagccac ggaatctggt 180
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 ccagaacaag ttgaggtatt caaaacaaac atgaacaaag tcatgaaaga aatattaagc 360
 cgtttttaaag aaatgcaaatt gttcactggt gaatcaatgg attgtgatgg catggttgct 420
 cttatggaat atcgtgaaat agatggtgaa tctgtccaat tctgatgttc tttaaacatg 480
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<210> 347
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

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 cggtggaata gcgcgtgtct ataccgaagt aaagcgtctg caaaatgaaa ggacaaatcc 300
 aattttcttg aacgcaggcg acaattttca gggcactctt tggtacaaca tacatcgatg 360

gaatgtcacg cagtactttt taaataaatt taagactgat gctgtgacat tgggtaatca 420
tgaatttgac cataagattg aaggtgtggt tccattcatg gggtccatcg aagcacctat 480
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<210> 348

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 348

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tgaaagttac aaccacctc cagaatatct atttgacaag aaagaattga agcaatggaa 180
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cctttactta tgtcccagag ctataaaaaat gagattgact attgaaccgg aagcttttgt 360
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aagggacata aagacatgat aaggtgcatg acaatagatt gcttgacaaa tatctggcta 480
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atgtccggga 550

<210> 349

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 349

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gctcgcgttg tcaaagatcg accagtagat gaaattttgc gcggttaagg aatggcttct 180
atcttttatg aagtgagtac tcgtaccagc tgcagctttg ctgctgcaat gcagaggctc 240
ggaggccgag tgatccatat agatgaaact agtcacatct ctaagaaagg cgaaactcta 300
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<210> 350

<211> 536

<212> DNA

<213> Ctenocephalides felis

<400> 350

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aaatttaggc tttgatgttg acacaataat cgatttcacg aaaagcttct tcggtggcct 480
aataaaccgg atgtgatgaa ataaatatag aatattcgta aaaaaaaaaa aaaaaa 536

<210> 351

<211> 284

<212> DNA

<213> Ctenocephalides felis

<400> 351

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aataaacttg gacttgatgg tgtcacttgt ggatgacagt aatgagtcag tagtatgttt 180
caagatcccg tgcaagggtg tataagtagc caaaaataatt tttgatttgt tattgatgga 240
acaaaattaa aataataaaa ttgaaaaaaa aaaaaaaaaa aaaa 284

<210> 352

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 352

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gacatccaga taaaatgtgt gatcagatca gtgatgctgt attagatgct cacttgaagc 180
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atctcagcac ctatatagca gctggagtca tgacatcgaa ggatgaaaaa tgggcangaa 540
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<210> 353

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 353

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tgctcgactt ggaggcataa ttggcaatgt ggtaattgca actttattag acatgtattg 240
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tttgcctaac acgaccaggg aaccactttc ataagaaaat ctcatcgtat aacagtcggg 360
cgatataata aatatattta ttcttctgct ccatcccaaa aacttgattt tgaatttaaa 420
tacttataaa ataatgagtc ttttcttata aaaatgtata taaataatta tcctanagtc 480
gttcattaat tanttcatta atgatgactt cgttattaat taataactan taccnancat 540
cnanaaaaaa 550

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<210> 354

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 354

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caacagtgtc atggaaagtt attaatgaga cttatgacga atcatccgat cgaatcaaatt 120
tgtaggatca tgacaatata ccaaattctg ctttggaatt tgatttggct gaaaaaagcg 180
atcgaggaga atatacatgt attgctacta atcaaggcat tggaattact gtttaattcta 240
caaccttggg tcgagttcaa gataaattag ctgctttgtg gccatttttg ggtatctgtg 300
ctgaagtaat aattttatgc gcgattattc tcatttatga aaagaaacgc aacaaagctg 360
aaatggagga gagtataca gatcaaagtn cagatcgaaa aaataactcct gtcacatgaa 420
ggcactgtgt gaggcataag aagtaancaa aanttaatcn gttgaataaa agttatgcc 480
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<210> 355

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 355

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gccagaggcc tctgtctttt aaaggagtgg attcgtgagg cgattctgga tttttcgttg 180
gagtcacatc tttaaaaatc aagtaaaaat cacagatgta tgcttacagg ttaatttaatt 240
ttatggagca gaggttctcc accaaaaatc gaagatactt taaatattgt aaacaagacc 300
acacttcaag tctgggttaa atttaaccaa tgtatgatgt cctgaatgta gatttctgct 360
agtccaaata atgtttcaat aaattgtaat tcagcacaaa ctattctaag ttcactaggc 420
ttctccaaca atctaaatcc aactcattat cttcttctta atatgcacca agatcagctc 480
tttggctcatt tttagcta 498

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<210> 356

<211> 269

<212> DNA

<213> Ctenocephalides felis

<400> 356

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tcagatactg cttccattaa agacttgga gcactttgca cagctctaata acatcttatg 180
tagttattaa attccttttg cagtctatta gcactatatt gctgcctggg gaagttttgt 240
aaatgctcat caaaaatata atctgcggt 269
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<210> 357

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 357

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gttagatcat gacaatatac caaattctgc tttggaaatt gatttggctg aaaaaagcga 180
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aaccttggtt cgagttcaag ataaattagc tgctttgtgg ccatttttgg gtatctgtgc 300
tgaagtaata attttatgcg cgattattct catttatgaa aagaaacgca acaaagctga 360
aatggaggag agtgatacag atcaaagtcc agatcgaaaa aatactcctg atcacatgaa 420
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atgcaccaga gtaggaag 498
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<210> 358

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 358

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ttgttgtttt gctttgtgga aattaccaga aagtcctaaa tttttgatga atcaggggaag 360
aaacgaagaa gctcgtcaaa ttattgcaa aatgtataga attaatactg gtaaaccaga 420
aagtgaattc cccgtatcat caatcttaga tgaatatcca ggagtggatg gtgaaaatac 480
aaataaaaca aagaaatc 498
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<210> 359

<211> 749

<212> DNA

<213> Ctenocephalides felis

<400> 359

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ataaaggcgc ttgcacgcat tgttggtaaa gcgcgctgaa gtatgtctgt ccggcgcatg 180
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tgaatcctcc gcctgctttc aaagcacatt tgtagtatcc tttgcaagtg ctgtcatagg 480
gatctataaa catccctttc tgcacgcatg aaaaaagaag cggcggtgct ggtgtaattg 540
gccgtagtgc tagtaatcgg acaattggag gangcanang tgtaattaaa cattccgaat 600
atgtagggcc cacacatntt tggtaaaact cacttatatc caagttncat tgggcntaaa 660
aaatganccg ttttgcanag caccctttta aaccaagntt gnacttggag tacctttggg 720
cgggacacnc ttaacccaaa tnttgnga 749
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<210> 360

<211> 450

<212> DNA

<213> Ctenocephalides felis

<400> 360

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aagatttgga catatggaca gttgcaataa ctaaagaaat gttgccacca agacgaccga 180
tatccaaacc aggacggcgc aggcctatct ctgaggtctc tttggttaaa agacattacc 240
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catttcgcac cacatttgaa tacgaagccc caacagtgtc ccagcgtta caatcagtat 360
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cagactgccc aaatcatgaa aagacctagt 450
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<210> 361

<211> 426

<212> DNA

<213> Ctenocephalides felis

<400> 361

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aagtattaag tataatatat ttagttattc ttaaacatat gttgttgttg ttttgataaa 180
gctgtgtctt aaaatgactt tatatacagc aattatcttc aataatcctt tccacaattt 240
tgctcggtgt gtttttagttt gctcaaactt atgggtgtat tgttttccac atatgtctta 300
atttccttca tcaattccga tgatgggttt tgctcacgtg tgagaatcca agctaattcc 360
atttttcttc gtggatgaat tgtgcagctc cacacaatag caaatttatc aaaatcgctt 420
tttagt 426
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<210> 362
 <211> 420
 <212> DNA
 <213> Ctenocephalides felis

<400> 362
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 ttccgtatct tcacattcca cacttgga tccaaaatgt gctctcatta ggtattcttt 120
 accacctgga aatgatttta tggaccaagt aaatgcattc aaatcaggag catatttaac 180
 acttccaatt gttgttttaa acttcgggga atctgcatca gctgggtacag gaatcagtat 240
 ctccacatta tttgcagttg accgtctttt aaattgtgac ttagctttga tcatgtattc 300
 tacacggctg tgtgcgtgcc tttcaattac tgattcaatc catatcaagg gttttacatg 360
 tgtgttaagt cgataagaca ttaactcaaa ctctccatca ggaggaataa atgatatggt 420

<210> 363
 <211> 218
 <212> DNA
 <213> Ctenocephalides felis

<400> 363
 cctggtaggt tntggtagtg ggggttttgg tggttctaataa gggaggattt ggtggaggat 60
 tttggcttan gggntgggaa tcggganggt tccattgggt tcattcangt ttgaacttgg 120
 agcanttgng gatgggctta tttcatcatt cgttgantgn ggntgggcgt ctttaacgct 180
 actggtaaat aaacgcctgg gccanggtc aagtctgt 218

<210> 364
 <211> 432
 <212> DNA
 <213> Ctenocephalides felis

<400> 364
 attccaaata tcactataag agctaaatag ccttccgtca ggtctccatt attaacctgg 60
 tcgaccacaa aataaatatt gattgcaatt actaaaatcg atagaaggat tgcaacgact 120
 gaattaaccg ctccattaac gaattctccc atgatagcag cattgctggt aaacgctata 180
 gtcggtaggg tcgcaaaagg tagttgtaag gacatcactg cattcagaag gtcgttcata 240
 cccgataggc cttcgtatgct attgaaaaat gccatcagaa atgttggtat gatggcaatc 300
 attcgggtga ataggatcct cttccagcga gaccattgta ggttgaggaa accctccatg 360
 gcgaattgac cagcacaagt ccagtcatt gtagaacttt gaccggctgn caatatttcg 420
 acagnccaaa tg 432

<210> 365
 <211> 390
 <212> DNA

<213> Ctenocephalides felis

<400> 365

aaatctccgc cctgcaatct tccccaaacc aaccaaccga tcaaatagga agccaactcc 60
aagctgtcca agttctccca acaaacctcg gtttgacac acacagacac caaaacaact 120
atgctgtacc ccaacaaacc aactttggat cctttcacca tcaccaacaa atcgcaccca 180
caaataattgg gggctactac tccccccacg gaattctacc aatctactac gataatgggc 240
acggattgtt gaattttaat cctttgaagc ctcaaaacta ctacgccagc tattatcctt 300
actaccagaa cacgagacag tattatcctt acaattttgg atattattat catcacagtt 360
tgccgaattc gcactactac aggagcagct 390

<210> 366

<211> 376

<212> DNA

<213> Ctenocephalides felis

<400> 366

aatacaagtg aactcctatt gacttgggaa ccaactgcac cagtaactnn agcaccagag 60
ctacatttga ccgaatatgt ccttactgac atgtgggtaa atgaaacagt tgtcaaggct 120
gatttggatg acctgagaca cggagcattt ggtgggacat acagtgcctt aagtttcacg 180
attcaaataa gtcgtgaaat gggttactat ttaatggatt actttttgcc atcagtaatg 240
atcgtgtcgt gttcctgggt aagtttttgg ctggcagcag accaatcagc acccagagtc 300
accttaggca caagcaccat gttgtcattt atcacattag caagtaccca aggaaaaact 360
ttacccaaag tatcgt 376

<210> 367

<211> 377

<212> DNA

<213> Ctenocephalides felis

<400> 367

netccacagt tccctgcatt gggccccatt cttacatggc gatgggacac aagaaggtct 60
acantcnttt atgatttctg ataaatgggt tgacatataa ctataaatat ccaatatttc 120
accattgacg accaaaccgn ggaagcagcc gatcaaccct tgctttatag ttgatttttt 180
tagatgatcc gccggagctc accgatgaac atgcttttctt caaatggcca aactgctcct 240
ctgctccaaa tcaaccatca tataatctgt atttatcatg aatctgcatg atattcgttg 300
naatogatcc aaattttatg ccattctccg ccatttaatt tctatttgaa tttatttcaa 360
tttcttctga cttcctg 377

<210> 368

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 368

atatatctta catcgaatct aataacattn aagagttatt aattttcatg tcgatgnntt 60
 agaaaatgat tcagtagcaa cttctgaatt ttctttgtaa tcgataatac tttctcaaag 120
 tataattgca tttcacaaca cacgacggaa atatggttat ggtccatatg aagcaatgct 180
 cgttcttcta tccacttgct tctgataaat gttcgggtata aagaatgcaa tcaactccaca 240
 tgctatcaga gatgttcctg atattaaaaa tgttaaatcg caattataat ctagaattat 300
 tcctacaaca ttgcttccaa caacacttcc taatcgaccc atcattaaag atatacatat 360
 tgccattgcc ctgagttgtg taggggtacag atctactaat gccgcgttta ccactgtcac 420
 agcaattccg caaaccagca accacaaata taaatatgat gctattgtta aatgttcaat 480
 aaatgcacaa attattcc 498

<210> 369

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 369

aacaaaacgg ttttaattgaa tctgtagttt ggaaattaat aaatatggac agtaacacgg 60
 ggattcaaat aatagcttcc aaagaaccaa aaccaaggca gtttgaagat gcgttggcac 120
 tcacaggttt tggaaaattc aattaccttc ttctggctcg gagtggatgc gtattagtat 180
 gtgttttgat ggaaactctt ggaatgagtt ttgtcgttcc ttcagcacaa tgtgatctgg 240
 aattaacaac aaaacaaaaa ggaatattaa gcgctatagc ttttataggt attataagca 300
 gttcacattt atgggggattt ttagccgata cgagaggag gcggaagtg attatgccta 360
 cacttcttct tgcatttttt tgtaccttgg catctagttt tgtaaaattca gtttggctgt 420
 tattttgctg cgatatttca atggattttt cgtatctgga ggaagtgcac aatatatgca 480
 tatttaggag aattcataat cctaggcatc gcacagggtc attatggggc gtcaagcatc 540
 ttcgatttg 549

<210> 370

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 370

cctttaagat tcgatgataa tatacaancg gccacagtgg ctgattatgg acaacaacca 60
 ctgcgtggca catcagcagt agtcgcagga tgggaaagat tcgagacagg actagacatg 120
 gcagggtgatt tgagaaaaat caacgtttca atagtcgacg agtttgattg cttcctatct 180
 tacatagaag aacaagaatt tacaaaaat cagctttgtg cctcctcttc taaaaaacat 240
 atgggcgctt gtaaaggtga tattgnatca ccattagccg tagatggtct tatagtcgga 300
 ttatattctt ggtcaggaaa atgtggcgac cccgagaaac cagaagttaa ttcaaattta 360
 gctgaatatt tcatgtggat cgaccattct ataaaaatat tcacctaat taataactat 420
 atgctttgca atcatctatt tatttgacct nggncgggac acccttagcc gnatttgnag 480
 atattcatca cacttggg 498

<210> 371

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 371

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tataaattgt atatatgagc aatgaatcaa tttttttaaa cattttgatt ttcctgggcc 60
ctgtagcaaa cttgatattt gacaactgaa ccatcaaagc tatatataaa tattaatcga 120
atctctataa atcttaataa catatcttga attaaagata gtaaattaac aatggcagcg 180
ggggctgagc ctttgtcact agctaaagat gtcaaaagag cctgagagct ccttgataaa 240
ttacaaatga ctggagaaat accagccaca aaaatagctg ccttacaaaa agttttacaa 300
tccgattttt ttactgccgt tcgcgaagtt tatgaacata tttatgaaac agtagatatt 360
caaggttctg aagacataag agcatcagca acagcaaagg ctactgttgc agcttttgca 420
gccagtgagg ccatgccatc cagcagttgt tgaattccta agacagatga aggcttaggg 480
tttaattgat ggggtgaaaa gaacaaaatt ctccatatca tatcaagaat atccagtggg 540
gagctgtcg                                     549
```

<210> 372

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 372

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gcttatgttt gtttttattt tgacgttgct aaaattttag ctttaatggt tgttttcttg 60
tgataaatta gtttttattt aaaggctagc gcataataat aatgatgcat ctgagcgctg 120
acatatctag tgcacttcag caacttgaga gcatcaagac agcaatagat gactcccatg 180
atccaaaact tcagctcagt actaatgaag atttgatgat gataataagc ctattgcaag 240
atccagtttt tccaagcatt gttactactc aagattcact aggtgaattg aattcccaaa 300
taacacaaca tccatcaata ttaccaggag attttgatat aactacttca ggtgatctaa 360
ttctgcggtg ccccttctc ttgatttata tgataatgag tacactgatg aacaaagagt 420
accctctgac aattaagtcc aggtagccct cagagggttag gtatagcatc ggtnggggca 480
gtcangggaa cattacattc atgaagggat caatntngca atgaggcaac cntgatggat 540
attcccaca                                     549
```

<210> 373

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 373

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gcaaaatatg atcaatactg tatatttaac atacacgcgc acatatgcat atatatatgt 60
atatatatat atatatatat atatacttat atgcatataa agcaatatca acatctattt 120
agttttcgat attctgcaaa taataatgat cttaaattac aaatagaata ttacatttaa 180
cagctaagaa tttgcagttt cacaataact gccagtcacc aaatgggtatt cagaatatca 240
ttcaaaacaa tttagccaat aatgtaagat gaaatacaga tgattataga aacattcaga 300
atctatacac tataaatatg aacattaata ctatgtacca cttaaaatgt gaaatctgaa 360
tacgtcattt gatgactgcg tgtaacaaga acttggtata gattataaca attataattt 420
aatatatctt tttcattttg taaccccaaa agagcattcc tcgcgtcttg cagcacttgn 480
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ggggtgtggt agtgtgatga tgatcatgta gatggtgatc cttatatcac ggttgggtga 540
cgagattat 549

<210> 374
<211> 549
<212> DNA
<213> Ctenocephalides felis

<400> 374
atcaaacaaa gaaaatgaaa accagtgttg taaaacatga aactgaggat actataaaaa 60
gtgaacaaag cgatcaatca attattgaaa tagatgatta ataatttgga aaactatttg 120
aagacgatgt aacaatataa gatttgtgac gttgaatcac atatatgtcg gtaaattgatg 180
ttttcctgtt tcggaaaaaac tcaactagta tttatttgcc atcatttaca aagccgtggg 240
aatagctaaa cctaataagag tctccattcc atttgtaagc aattttataca taccacata 300
tatatgcaaa tatatatata tatatatata tatatatata tattattttt 360
aaatgctgga ccatgtttct tctaaatntg agtttaattgt ngcattcttt cgatatcgaa 420
tcattagttt tatgttttta taagggtgat aattatttca taagactgtc actggagaaa 480
tatgttattt attaatataa tattaattaa atatatacat taccactat gtataaatgt 540
tcataaatc 549

<210> 375
<211> 549
<212> DNA
<213> Ctenocephalides felis

<400> 375
cttaggaatt gtggcagcaa gtccagccat atatagtgca ttacacatt gtattcgcaa 60
atcgtattag tgtgtaagtt ctgtattttt tttctatatt tgaattatta ggaatgatca 120
ccaacattgt gtatattcat gtcaaataa ttgaaaatgt tctatttaga tgtgaaactt 180
gacatgattt aatttaattt aaatatgtat tttactttgt tcatgataaa ggcatttata 240
tttaaaaaaa tatattttac tatgtgtatg taagtataca tgtacatgca tacatacata 300
tatatatata tatatatata tatatatata tgatggtaga ggcttggatt tgtaaatatt 360
ttgaagagct tcgaacaaag aatccaaagg taataaaaaa ccacaaagtt tgttgaaaca 420
atTTTTTTTt ttactgtcgc gtttcggaac taagtatggt cacctgcagg acattgcaag 480
aacatcatct taaacaagca atatacttag tagaataaaa tgctggattt tataaatgac 540
aaattgnga 549

<210> 376
<211> 498
<212> DNA
<213> Ctenocephalides felis

<400> 376
atggaatagt gctaacaaa gcaaagataa accaatctcg cgtcgccac atcagtaacg 60
gcataagaat cattccactg gtccaccga tggactgcat catggcaatg tgtgctctat 120

```

cttcacttct ggatatttcc atcgcaatta tcaaagggct ttgaaaaaca gatgtagatg 180
ttagtgaacc aagaaaagcc gctgttataa aaacaataaa ccaactggaa gttaatgctg 240
taattagtct tccggtgacg attgtgatga gacttaagta aaatactggg cttcttccaa 300
tcctatctcc taattgtcca aaaataaatg tgcctatgac ttcgcctgca cgtccaatag 360
caaatgtatt agttacatag agttctctat caciaaccca gtcttgatct gacggagccg 420
ttgataaata catgttctgt catattcata accatgctga caaggtatta tttgactttc 480
aatcttattt gtctcttc
498

```

<210> 377

<211> 598

<212> DNA

<213> Ctenocephalides felis

<400> 377

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agtaagaagt aacttaaacc gcaaacgacc cagcatatca ataacattat tgtgttcttg 60
gcgagcgtcc agcttgtgaa caaactcatc attccaaaaa catgttcagg ttcagacgaa 120
taatctttta gcatttctaa tgcacatca ttcaatgttg caccattaac tttggcaatt 180
gtgcgtaaag ttttttcaca tttcttcatt tttcctctgc ttgctagcca tcttggtgat 240
tcaatcatat atttgttatt aattaaaaat attgcaaag gcaatgaaga aactagaaca 300
aaatcaaacc aatttctcaa ccaccacatc aaaagaggca ttgtgcaa atccaaacgtc 360
cacccaattc cttgtaacat agcgacgtgt gagttttcat cacttgctga tatttccatt 420
cctatgacaa gaacagtctg gtatagagac atctgcgggn agtgcagtca ccacatatcc 480
aantacatac caataatatg aactagttag aaataagtta aatatttttc ctacataatc 540
aacaccatgc tgagaaaaaa tactggttcc ttccaataca tccctaattg tcaaatac 598

```

<210> 378

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 378

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cttggcatct agttttgtaa attcagtttn gctgtttatt ttgctgcgat atttcaangg 60
atttttcgta tctggaggaa gtgcaacaat atatgcatat ttaggagaat ttcataatcc 120
taggcatcgc agcagggcta ttatgggagc gtcaagcatc ttoggatttg cgtgtcttgc 180
attaccgacg gttgcatggg taattataaa tcagaaatgg tcattctata ttgacttttt 240
gggatataca tacaagccct ggaggttgta tatggttgca tgtggtttgc catcactgct 300
ttgttgtttt gctttgtgga aattaccaga aagtcccaaa tttttgatga atcagggaag 360
aaacgaagaa gctcgtcaaa ttattgccaa aatgtataga attaatactg gtaaaccaga 420
aagtgaattc cccgtatcat caatcttaga tgaatatcca ggagtggatg gtgaaaatac 480
aaataaaaaca aagaaatc
498

```

<210> 379

<211> 451

<212> DNA

<213> Ctenocephalides felis

<400> 379

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ttctgttcga agtaggaaat agttcgagtg tatgcaaaat aactactgca aatactgcac 60
tcatgaataa acgaccaata agtgaaatta ccattaatgt ataagcataa tctaaactga 120
aagatagaat tggatgaaa cacgccgtag cagacataaa taatagaaag tttatagtgc 180
ggcgtccaca aaatttcagt agcggcaaag gtatgaaata acttatacac tcaagcgatt 240
cactcataat gccgtatatc attttttcga caggcaaatt aatatcgttt attgccatag 300
catagtaacc gagagcactt gaaaaccaag taacaaggca aataagtaat ctatgtctca 360
tttctgtatg ctttaagtata tcagttatct ccacaaaact atttttaact ttctgccagc 420
aagatgggtt tttaccacca tctgcttgag t 451

```

<210> 380

<211> 401

<212> DNA

<213> Ctenocephalides felis

<400> 380

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agtccactca ataaagtagc gacacctccc atcgtcagtg ttatgttatt aatccataaa 60
acatttacgc tagtatttga agccaaaacc ccgcatatca ccctagtcaa tgtgttagat 120
ataccaatag ttgataacaa ccaagctgtt tcatcatcgg tcattccgct ggttttggtt 180
ctctgagcaa tatataggaa tggattaaag taacccatca tagtaaagaa accactgaag 240
gcgagcaaaa ggaatgacgg cgaacgcac aagttcatat ctaacatggg agcgagagtt 300
cgacggaacg cttctgggca aagcttgcaa gaagactgtt cttcgacatc cgcccgagta 360
ggtaatctag ttacggacat gtggtatcca atagaagtcg t 401

```

<210> 381

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 381

```

ggccctggac aagatgcctt tcgactcacc accgaatatg gagctgtcta cgatcaaaat 60
gccaccattg aagttcttaa taaacagaag aggaaaactt tgtgccacac tgatggcgaa 120
ggagttgaat gcgaaacaga agaagggagc atcgcacctc aaataatact atttggtgcc 180
caattaattt ctggagtcgg tggatcttta tactacactt taggtgtatc ctatatggac 240
gataacacca aaaaatctaa aacaccagca ctgatgagtt tttcttattt tcttcgtatg 300
ctcggacctg caaccgggta tgccttggct agcgtctgtc taaagttcta catttcgcca 360
acgttgacgc caacaattga taataatgat cctagatggg taggagcatg gtgggttaggt 420
tggttgatac taggatcaac tttaatatat tttgcaacgt tgattggatt gtttcctaaa 480
atctgccaag agctgcaa 498

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<210> 382

<211> 461

<212> DNA

<213> Ctenocephalides felis

<400> 382

atgaatccaa ttcggcaagg agcaatcact tcatcatttg aatgcccacg gtgatgctgg 60
gtcttccata cagaattcac agttgtattt ttaccctcag gacaaccttc agtcgacata 120
tttaggtaag ggaatttcaa attcccttga gcaatgttaa tttgggctcc acttaccatc 180
caactgacca ggattagact tgcagctgct cccacaaaaa ctcccttagt gtttgcttta 240
gggaacaaga ttcccaatgt aaacattccc aaaagtgttc ctgcagttac accagtaaca 300
ctgatgacaa ggtgcatgac gcttcctaata tgttctacta cgaagacaag cccagacaa 360
attcctccaa ttactactac agtcaacttc ataattattac tggcagctct ctgagtagtg 420
ctaaccggta accactcctt aataaaatct tcataaagtg t 461

<210> 383

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 383

aataaatata attttattat ataagaaaca tatgtataac aatacaaatt ataactattt 60
aacagtcttc ttgtgataat ttcttgacgg ccgtatctgt agactttgat acaccttttt 120
tcggtaagct ccagaacacc tgatccctgc cgaatacgtg agcttcagtt agcgtttccg 180
gtaacttttg gtgtaaagtt tccggcaaga acattccgga agtcgcgccc accatcatca 240
ttacggaaag tacagcgtac ggatatctgg cgtcatatgt gggtcccaag tatacaatgt 300
atgggcttaa tactcctaata gcatctgaaa ctatagttcc aatggaaatt cctgtctgcc 360
tcaaacagggt tggatatgtt ttcattgctt gcagattcac aacataaaac gtgatgctta 420
tgcaaaatct cattaccacg gctaacagtg ggaccaaatt ctggagggat tcatcattgg 480
caatgcatat aagaatgg 498

<210> 384

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 384

atcnnncnnn atangtggat nnaagaatn ctangnatgg gcctaanact nctaagcat 60
ttgaaactat nnnnccaatg gaaattcctg tctacctcaa actgggttga tatgtttcca 120
ttgcttgacg attcacaaca taaaacgtaa tgcttatgca aaatttcatt accacggcta 180
acagtgtacg caaattctgg agggattcat cattggcaat gcatataaga atggaagatg 240
ctgccagagc aattccaaaa gaagctacag aggtccaacg tcttcctatt ctgtcgctgg 300
agaaacgtcc tagtagatat gctggtaatt ctactgccga ttgatataaa aagttgagaa 360
atggattacc tcccatattg ctcacgttca aaattaatgt aaaatacgtc acggaacata 420
caatccagca aagcacaata agtgtagtat ttctagctaa acgtaaaacta gaaaataaac 480
tcatgattcc gtaaaccttt 500

<210> 385

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 385

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cattaaagaa gtatctttag gaccaacaag tttagctgct ctgatggttt tggaatattg 60
tcatgaaaaa ccagtcgaat atgtagtttt actaggcttt ttagctgggt gcattgaact 120
tatgatggga ttactgaaac ttggattttt agtcgatttc ataagtgcc caatcgtatc 180
gggttttaca tccgcgatgt cgtaataat tatttgtgcg caggcaaaag gtttgctagg 240
gctgcattat acaggacatg gatttgtgga tacattgatg cagctaatac aaaggatatc 300
aaatgcgaga ttagctgatt ctatacttgc cttatgctgt atagtttttc ttttaacatt 360
aaggcaaata aaagatttga aagtctccag tcctgtttta aaaagaacct tatggtttat 420
ttcaactgga agaaatgcct tgatcggttt aattacagcg ttgcggctta cttttgggaa 480
angaattcct ggnaagcc 498
```

<210> 386

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 386

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aatattttta attcataata tgtatatgat tgaatcgcca agatgggttg nggagtcgat 60
gtaaaataga acgatgtgaa aatacattaa aaatcatttc cagcgtanat aagacaactc 120
ttaatgaaga tgcaattaga gtgttaagag aaaaatcctc aggaaaacca gaaaaagttt 180
acggaatcat gagtttattt tctagtttac gtttagctag aaatactaca cttattgtgc 240
tttgctggat tgtatgttcc gtgacgtatt ttacattaat tttgaacgtg agcaatatgg 300
gaggtaatcc atttctcaac tttttatatic aatcggcagt agaattacca gcatatctac 360
taggacgttt ctccagcgac agaattaggaa gacgttggac ctctgtagct tcttttgga 420
ttgctctggc agcatcttca ttcttatatg cattgccaat gatgaatccc tccagaattt 480
gggccactg tagccgcg 498
```

<210> 387

<211> 396

<212> DNA

<213> Ctenocephalides felis

<400> 387

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atggattcat gtgcctttac ctttagtatt tgccgaatat ttttcacagg agagatttcc 60
ttcagcatat ggactgttca tgttcttgca aggaataatg acattggctt tgggtccaat 120
tgttggattt attcgagatg caacacacag ctacataata tgtttccatg ccttgactgt 180
gtgtttactc atttgcgtga taccatggct tgccgagatg gcgtgggtta aaatgaaaaa 240
taagaaataa atttaagaat taagttaata ttaattggaaa aattatatat agtttatgtg 300
aattttatca cacgtgttat atatctttat aaaagtaatt tataaaggat tgtcacagaa 360
aatataaatg acaaaaaaaaa tgttttnnaa aaaaaa 396
```

<210> 388

<211> 203
 <212> DNA
 <213> Ctenocephalides felis

<400> 388
 agagaacatt cggaagtgaa gatgcctgtg aacaagcatg atggatacca aatggacttg 60
 gacagtatatt tgaaagagtt gggacatttt ggaaaatttc aacttctgaa ttgcctgttt 120
 atttgcatta caatattgct atttgctatg tatgcgatga gctatgtgtt cacagcggga 180
 gtagttaatc atagatgttt agt 203

<210> 389
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 389
 gtcnntcggg cagtcgggtct tgactcgccg tacaagatag tgattcgttt tagtgcgggg 60
 gtttttgttg ttgaacttat gtgcctttta cttaaacttt tcaaatttat tcaatttcat 120
 caagtttttg atttcgactg tgacgtacct ttaacaaata ctaaaaattt gaaaagataa 180
 aaaattgaaa tcgaacaaaa taaattaaag tacaacaaat ggagaaagat atggaaaata 240
 atgaggacca aaaagagatc aaaatggaat cgggcgaaga aagcatgcga ccagttttta 300
 acacacctga tccagtcgag actgccacag taatagttcc tcttgatgga ggatggggct 360
 gggtcatagt agcgcgatca ttcattgagca acatgatagt ggacgggtatt gtgttctgat 420
 cggaccaata attgaagaga tcaaatttca tttggtgcaa gtaagctaaa gtagccctta 480
 tcagttcgct gtctccggat tctatctgat ggtggtcttt tgtagtgggt tgcgaatcga 540
 ntgggttcc 549

<210> 390
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 390
 gcctgtggta ggtcccagga gcaaggagtg gaaatgttgc ttctgtctcc acgttcggac 60
 tgcaacaata tgtcttgga tttggcattt gatgctgcac ttggttgac tatgtgttct 120
 tgtgataatt ttgcattctc cgaacctgat aaaccaattg gagcaccag atcaatcaat 180
 gatgggtgta ggtgttggtt ctatttctcg ttataacgga gacaatagct tgtaaaca 240
 gggtgatgat aatggaacac ctttgggaga aatggagcat cctccatatt catatagaga 300
 ccactcactt acatatcatg atgtggacat ggggtgctctg gttacaattt gtacactggc 360
 cataacatta atgatgttat atggagcagt taaacaaaag cctgcacata ttttgccatt 420
 cttctgcttg caactatttg attttgcata actacactta ctgcacagga tatttggtta 480
 tttgcgcagt gtcatagatt gtatcagaaa gtcgcattac caatgagaga agacttttga 540
 actaacc 549

<210> 391

<211> 304
 <212> DNA
 <213> Ctenocephalides felis

<400> 391
 cattgtggat gaggcaaata ccatatacca tgatgaagtt tgcttgtttc gaaagaacag 60
 ttgaattggt atacactcat gtggttccca aaccagagc agaatgcact aaaggtgaac 120
 aattggttgt cacctttgct gctggttaca ttgccggtgt attctgtgca gtagtttctc 180
 atcctgcaga cacagttgtt tccaagctaa atcaagacaa aggagcaaca gccattgacg 240
 ctgcaaaaaa cttggctttg ctggtttatg gaagggatta ggacctagga tcatcatgat 300
 tggt 304

<210> 392
 <211> 229
 <212> DNA
 <213> Ctenocephalides felis

<400> 392
 cgtggttttg gagtatctgt tcaaggtatc atcatctacc gtgcagcata ctttggttc 60
 tatgacaccg ctctggaat gtgcccagac cccaagaaca cccattaggt tatcagctgg 120
 gccattgcac aagccgtcac aactgttgct ggtattgtgt catatccatt cgacactgtc 180
 cgtaggcgta tgatgatgca gtctggacgt gcaaagtctg aaatgttgt 229

<210> 393
 <211> 408
 <212> DNA
 <213> Ctenocephalides felis

<400> 393
 gaaaaatggc aactgctggt tgttgcatag gacaaggcat tttcatggca ggtttagcat 60
 tctctggtta tgatcacatc gcggctattg tgttcatgac tctggcgact gcagttaatg 120
 gagccgtttc aactgggcca ttagccagct ttgtggattt gagtccaat tatgccagta 180
 ttacgctggg attgagtggg atgatttctg taatgacctg ttttatttcg cctgctatcg 240
 ttggtatact aacatttgaa aaccaaacga tagagcaatg gcagaaagtt ttctctctag 300
 cgacagcaat gttggtcggt tgtggtcttt tatatttggt gtttgcggac tctaattctac 360
 aatcctggaa cagtccagat aaaatcggtc aagatccgaa gaaattgt 408

<210> 394
 <211> 129
 <212> DNA
 <213> Ctenocephalides felis

<400> 394
 aagcaagttt tcttggttgg agttgacaag aagaoccaat tctggcgta cttcgcagga 60
 aacttggcat ctggtggtgc tgctggagcc acatcattgt gcttcgtcta cccattgat 120

ttcgcccg

129

<210> 395

<211> 427

<212> DNA

<213> Ctenocephalides felis

<400> 395

catgattggc cgctgatgta ggtaaaggcg ctggccaacg tgaattctct ggattgggca 60
actgcttgac caaaatcttc aagtctgatg gtctccctgg attgtaccgt ggttttggag 120
tatctgttca aggtatcatc atctaccgtg cagcatactt tggattctat gacaccgctc 180
gtggaatgtt gccagacccc aagaacaccc cattagtatt cagctgggcc attgcacaag 240
ccgtcacaac tgttgctggt attgtgtcat atccattcga cactgtccgt aggcgtatga 300
tgatgcagtc tggacgtgca aagtctgaaa tgttgtaaa ggaacactg cactgctggg 360
ccaccattgc caagacagaa tgaagtgggt ccttcttcaa gggagcttcc tccaatatcc 420
tccgtgg 427

<210> 396

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 396

atccaagaaa ctttaaaatg cacatctagg gaaactgatt taccaccaac accatgggtg 60
gcaatttggg catctgttcc attgtgggca cttatttgcg cccagattgg acacgattgg 120
ggtttcttca caatggtaac agatottcca aaatacatga acgatatttt gaagttcaac 180
atctctgaaa atggattata ttctgtctct ccatatgtcg tcatgtggat cgtgtcgatt 240
ttatcagcaa tttggtgcga tcatatgttg aaaaaaaga tgttgagtgt caccaatgcc 300
aggaaattat tcacaacgat agcatctggt ggtccagctt gttttattat tggagcatca 360
tttgcgtggt gtgataaaac tcttggtgtt gccttggtca ccattggaat gggtttcatg 420
ggaactttct acgccggtat gaaaattaac gcattagatt taagtccaaa ttatgccggt 480
cattgatggc cattgcaa 498

<210> 397

<211> 305

<212> DNA

<213> Ctenocephalides felis

<400> 397

caatcatgat gatcctaggt cctaattccct tccataaacc agcaaagcca agtttttttg 60
cagcgtcaat ggctgttgct cctttgtctt gatttagctt ggaaacaact gtgtctgcag 120
gatgagaaac tactgcacag aatacaccgg caatgtaacc agcagcaaag gtgacaacca 180
attgttcacc tttagtgcac tctgctctgg gtttgggaac cacatgagtg tataacaatt 240
caactgttct ttcgaaacaa gcaaacttca tcatgggtata tgggatttgc ctcatccaca 300
atggt 305

<210> 398
 <211> 342
 <212> DNA
 <213> Ctenocephalides felis

<400> 398
 aatacttttga atacttcata aagaccgaat ttgcaaagac cctgcatgga gtatccaaca 60
 aagggttgag cccaaccttt agcaagacct ctaccgctag agttactttg 120
 aatccattga atactgattt gtatttttga ggatctactt gaatacggca tttcactaaa 180
 tcaagtggaa cgaccatggt gtgtgttaca ccgcaagaaa taattcctcc aaatccgcaa 240
 agagcaaagt aatgaccaga tccaaaggca caggaatctc ctgttgcata tgaggtggag 300
 gctgccattg ttgccaatga tttagattca gcttcacatt gt 342

<210> 399
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 399
 tttttttttt tttttttttt ttttttttta ttattgaaat tcattttattg aatataatta 60
 aaatttcaca tatttatatt cataatttta ctacatttct aagccttcat tataataccc 120
 gttgcctgca gctccactag ttttacttgc attagaatta atattgtttg gataatcgtc 180
 atttttaata cttgtatttg tattagttaa atttttggcc catggctgca cttgcgcgga 240
 tgcaaaaaaac caatatatca cagctcctaa caaatatatt ccacttgaaa tgtaaaatag 300
 aatttgccac gatgtgagta aatcatctcc aacctttcca ttaacaatga aaccagtcaa 360
 ttgagggctg attattcctg gcaatgttgc aaaagtattt gacaatccca tcagaacgct 420
 agcatattgt ggtgcgatgt ccaaagtatt tacactgaat ccagaccaag caaaagcgcc 480
 caaaccacac gcgactgcag 500

<210> 400
 <211> 383
 <212> DNA
 <213> Ctenocephalides felis

<400> 400
 cgctgcccaa tggtttattt atgatgccgt caaagtctgg ttgcgtatgc cagcaccacc 60
 accaccagag atgccagaat ctctcaagaa gaaattagct gcccaacagt aaaaatagat 120
 ctgtgatgat cctctcaata atgcatgtat cagcaatatt acaattgaaa ttgcaactaa 180
 catctaaaat agcagtatca gtgatggact attcaattta gtaacaatgc tgtctaactg 240
 gatcacgttt ttcattccaa attttaattt taaatgaaat aggcaattat aatagtatta 300
 caatttcttt taacaaattt gtgaaaaacg tttctggttg atgtgtaaat aaaacaaaaa 360
 aaaaaaaaaa aaaaaaaaaa aaa 383

<210> 401
 <211> 188
 <212> DNA
 <213> Ctenocephalides felis

<400> 401
 taagccctta tagaatccat taagtccttc atncttatag attttgggaa ctgcttcacg 60
 catggtgtta gcaaatccag gcatagtctg gatacgaact ttagcagctt ccatgggagc 120
 taaagcaatg tcagcaaaga attctgcaact agcagaagcc gacaagtaaa gcgatgtcct 180
 ccataagt 188

<210> 402
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 402
 tttttttttt tttttttttt tttttttttt gggtatataa aaatatttgt actatagnta 60
 gttctaaata tacatttggt cacaataata taaatattat ataatcattt gtatacaaac 120
 ttaataataa aatctataca aatatttatg ttataaatta ctataacaac ngttacaatg 180
 aaagaaaaaa atagcactac tatacacaaa gtctttgggt atatgaaaaa tatttaaatt 240
 caatctaatt aattttttgc ttttgcatga tgtaagattt taccatgcct tttatatcag 300
 tgaatataaa agtgcctata aatacaagtg cagtaccgat ccaatgtatg attgtaaatt 360
 cattattaaa atatacaata gagaacaatn atgacacaaa ttttctaagt gtaataacta 420
 aggnactgt taatgatgaa cattctgtag tcagcncatc nctgggcttt tgcccnggtt 480
 tngggttatt ncntttcccg 500

<210> 403
 <211> 487
 <212> DNA
 <213> Ctenocephalides felis

<400> 403
 attattactt ttataaaaat ataaatctat ggatatctat ataagggaga ggtgtgggna 60
 acctacatga tttaaagtatc acttttattt aattaattag ctattatgta taggtaattc 120
 tatttagttt tgtttaatta attaattact cagccttgct tattattatc gatttcgata 180
 cggaaagcca aatcctgcat cgagtcgtgc tttagaaggg acttcttttc gggatcttta 240
 acttttctga ttggtttttt gtttttacca tatctatttg taacaccatc atcctcgtcc 300
 atcatcctta aaatagttaa ttgatccgat gaatctaagg gggccacaga aatatcacga 360
 acggtcttga atttaccaca attattcaaa tgttcgtttt ccaaacggaa gaaattocat 420
 acaaacctcc taaacacttc caatggtgac agtatagatg taagaatgtc cccgctcaca 480
 aaattgt 487

<210> 404
 <211> 343

<212> DNA

<213> Ctenocephalides felis

<400> 404

tttttatgct gatttagggg taattaaatt agcagaagac atagagttta gtgataaggt 60
gcaagctgta aacattcacc aaagtgaaat ccaaggtggg gaggaatgca aagcaactgg 120
atggggtcga ttgggtgccg gtcaaccaat accaaatgcg ttgcaacagt tggcaaccac 180
tgctttaagt aatgagaagt gtaaagaagt tactggattc ttcgagccca catcgcaa 240
atgtgtattc aaaggatctg gaaaaggagt ttgttttggc gattctgggtg gacctttagt 300
ttacaatgga gaacaagttg gagttgcatc atttatattg ggt 343

<210> 405

<211> 387

<212> DNA

<213> Ctenocephalides felis

<400> 405

ntgtcaacna tttgcaanta tttggnaatt tggcnaccat tanataatta cccccancna 60
cccanantgg anacggcccn aattggggta ccanaccttg ccanacnanc nggtttgnca 120
nanttngtgt anacaanatt tgangtantt tttaccaaac cnatntnatn gtggngangtg 180
tncggtttaa attggttatn aacnatnatt tgggcaactt tgtanccaac nccgccanca 240
tncaaantgt tggtnccaac nacaanaaga atancatttg ganatttatt taanacccaa 300
ttaccacat taanaancca acnattgcng atnatggaac caccacanaa ttgtccttgg 360
ttggttctca aagacacat aaaagggt 387

<210> 406

<211> 127

<212> DNA

<213> Ctenocephalides felis

<400> 406

aagagggcca ccggagtctc cagagcaagc gctaactcca ccagtcaagg gtccagtgca 60
caagtttgtt ggggtgcaatg gagtagatcc ggctcctcct agagcctttt cacactcggg 120
gtatgggt 127

<210> 407

<211> 415

<212> DNA

<213> Ctenocephalides felis

<400> 407

cgaaggggaac aactttgagt gtaactggat ggggcgccac gaaggaatgg gggccaattt 60
cgccaaagt acaagaagt aaagttaaag cttactcaag tcaagaatgc aagaacagtc 120
atgctattaa cagtgcacac atttctgaca gtatgatgtg cgctgggttt cctcaaggac 180
aaaaagatac ttgtcatggg gatagcgggt ggccacttgt agatgaaaaa caggttcaag 240

taggagttat atcctggagg cgaggatgcg cgcgacctgg atatcctggc gtatatacaa 300
aattgagcca cccggaaatc caacagttta ttaaaaacaa tgtaaaattt taaatcataa 360
aactgtatga ataaacaatt acgaaaaaaaa aaaaaaannn aaaaaaaaaa aaaaa 415

<210> 408

<211> 445

<212> DNA

<213> Ctenocephalides felis

<400> 408

cccaggatac aatccctata agtttcctgt ttttgtcaac taatggacca ccataatcac 60
cgtgacaaaa accgccacct tttgcagaac cagcacataa cattctatca gtgattctgt 120
ctggttttcc tggttctgca taattacttt gacatactga agaatctatc anaggaatcc 180
aagcaccaag taattctgaa gaatcgtttc cttcggctctg gttagctccc catcotgtta 240
cataaactaa agatcctaca ggagctctcat attgctcatt agctaaattt acaggtcgac 300
tattacacac tgtaagttaa ataggatttt taactttaac cagagcgaca tcataatcaa 360
aggtccttat attaaatttc ggatgtaaaa ctatgtcggg tacctcgtat acatttccat 420
ttgaattgtg gtaggaactt cctgt 445

<210> 409

<211> 445

<212> DNA

<213> Ctenocephalides felis

<400> 409

aggaagttcc taccacaatt caaatggaaa tgtatacgaa gtaaccgaca tagttttaca 60
tccgaaattt aatataagga cttttgacta tgatgtcgct ctgggttaaag ttaaaaatcc 120
tattaaactt acagtgtgta atagtcgacc tgtaaattta gctaatgagc aatatgagac 180
tcctgtagga tctttagttt atgtaacagg atggggagct aaccagaccg aaggaaacga 240
ttcttcagaa ttacttggtg cttggattcc tctgatagat tcttcagcat gtcaaagtaa 300
ttatgcagaa ccaggaaaac cagacagaat cactgataga atgttatgtg ctggttctgc 360
aaaaggtgac ggtttttgtc acggtgatta tgggtgtcca ttagttgaca aaaacaggaa 420
acttatangg attgtatcct ggggt 445

<210> 410

<211> 352

<212> DNA

<213> Ctenocephalides felis

<400> 410

gacaatctaa taagggccac atcatgttcg aaagatgtaa agttggtgtc aaagtcggga 60
tgtaataaat aaaaattggc atccacaatt ataccagcgt aataagccct aaagctgcca 120
actogaactt gaacttggtt ttogttgogg acatttttga agcattgagc aacagtgagc 180
acaaaatata tactaactat gactcctoca caaatatgat cacctctata taaaacagat 240
gccacgtaag gtaattcgct gatgtcagca ggctttcctc cgatcatacg agaatcggtc 300

aaatTTTTgc tttctgctcc agaaaataat acaataaaga aaattgcaaa gt

352

<210> 411

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 411

tggtatagaa taaaatTTTT ttataatcag aaattatctt cgctttaact tttgatgcat 60
attatTTTTat gagatatatt tataataaat atTTTtattca gaattgttca ataaaaacatt 120
gtccgtgttt ttgtgaatcc agtccaagaa gtgatataact cttgcataga cgtctggcac 180
tcctgtgcca catggaatac caaaagatac tactctggca acaactggtc catcagggtc 240
tcgaacgac agaggaccac cggaatcacc catgcataca ccaatgcca gtttccggaa 300
agcacacagc attgtttcag ttatatcatt ttgtctagaa actttattct tgattgggtc 360
ttgattgaga aatTTTTggc aaatgcgact ttcgtatgag ataccocatca tTTTTtgtaa 420
atgatctggt atttgaccaa atggagtagt ttgtcccaa ccagaaactt caacagtctc 480
tccgcatgg tatcttct 498

<210> 412

<211> 386

<212> DNA

<213> Ctenocephalides felis

<400> 412

cttttatggt gtctttgaga accaaccaag gacacttctg tgggtggtcc atcatcagca 60
atcgttggat tcttactgct gctacttgcg tgTTaaataa atatccaaat gatattcttc 120
tcgtcgttg aaccaacact ttgaatgctg gcggagtagg atacaaagtt gcccaaataa 180
tcgttcataa ccaatttaac cagaacacat accacaataa catcgctttg ctaaaaaacta 240
catcaaatat tgtatacaca aactatgtca aaccagttgg tctggcaagc tatgatacac 300
caattggagc agtatccact ctggctggat ggggctactt atctaattgt ggcaaattcc 360
caactacttg caaatcgttg acacgt 386

<210> 413

<211> 348

<212> DNA

<213> Ctenocephalides felis

<400> 413

ctcatctacg gtcaatggac ctccagaatc tccactgcat tgtgctctgt cataatctgg 60
ataagctgcg caaatttgct ctttataaat ggggtctaaag tgcaaatac cacattcctt 120
ggatccgacg atctggtagt gcaattcttg cagatgtgtt tgcaaaactc cgtcggtagt 180
agaatttatt ccccatccga caagagtagc tgggtgcattg tgtttagttt gttcatttgc 240
ttctggcaaa gtaactgggt ggcgaaattt actatatTTT aagggttcag atagcttgag 300
aagtgcaatg tcgttgatat aactgttact aggattatat cctttgtg 348

<210> 414
 <211> 147
 <212> DNA
 <213> Ctenocephalides felis

<400> 414
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 aatgtgcagc cgtcacaatc caacgtttgt tcaagatgga tccaccacag aaatgctcta 120
 ggtctcgatt tctcaatgaa acttggt 147

<210> 415
 <211> 467
 <212> DNA
 <213> Ctenocephalides felis

<400> 415
 ctttacatat tgcagttggt cggggtcgtc ttcattcttc cctaaatttc ccagccaggt 60
 aacagtggnt aattctcctg atggcatgtc tttccaaca tcagtaagtt tgactgttct 120
 aacagntctg ttattcaacc ggaatggtct tcgaaccttg atgagggcga catccatata 180
 gatgtcagtt acattaccgt atgcaggatg cttgataatt tgtgccacag gatgaacgga 240
 accacgtctt ccttggaaac tgggtccgac tcgaactgaa tacgtgaatt catcatatat 300
 gcaatgagct gctgtgacaa tccaataatt attcaatatt gaagctccac agaaatgttc 360
 gttaaatact tggagtgaag cttgatagcc atatttgga atatcagcat cttgntcca 420
 acaatgcgcc catctaatac atcctttatc ttgnaagatg agacggc 467

<210> 416
 <211> 346
 <212> DNA
 <213> Ctenocephalides felis

<400> 416
 tcattacggt gtggaatggc tcgtccctca tcctcggtat gatagccgcg atcaaaaatta 60
 caatgtaggt ttaattatga taacaaagga tttcaatgaa actagaagaa gccgacctgc 120
 caagctcgta gaggcaaagt tcgacttgcc tgtaggctcc tttgtcacag ctactggatg 180
 gggatctgaa acgataccag gagcacctat gtcagaaaat cttagagcaa tatctttgca 240
 cgtcattgat aatcaagaat gtcttgaaaa aaatcaagag ttgattgatg tcacagacaa 300
 aatgttttgt gctggatcaa tagaagataa aggaaaatca gtttgt 346

<210> 417
 <211> 312
 <212> DNA
 <213> Ctenocephalides felis

<400> 417

aattcttggc tataagttcg ttgcatgttt tgcaagtgat ttgnttattg cattttattnc 60
cgtggcatat ttacatgaa tcagagtttg cattacaatc gttaccctga tctgatttgc 120
atcctcgagt aatgacacct ttttcaattt ttgaatagca gtcgcctttg gattcataca 180
aactttggtc ttctgtcttc ctgcatcttt gaaacattcg tttcttagtt ctggaagttt 240
ttgaacgtta caaccgatt tctcgcaaca cattttttct cggntagtcg agtcacaact 300
ttctttaacc gt 312

<210> 418

<211> 315

<212> DNA

<213> Ctenocephalides felis

<400> 418

aattcttggc tataagttcg ntgcatgttt tgcaagtgat ttgnttattg cattttattcc 60
cgnnggatat ttacatgaa tcaagagttt gcattacaat cgttaccctg atctgatttg 120
catcctcgag taatgacacc tttttcaatt tttgaatagc aagtcgcctt tggattcata 180
caaactttgg ncttctgtct tcttgcattt ttgaaacatt cgtttcttag ttctggaagg 240
ttttgaacgt tacaaccgga tttctcgcaa cacatTTTTT cttgggtagg tcgagtcaca 300
actttnttta accgn 315

<210> 419

<211> 387

<212> DNA

<213> Ctenocephalides felis

<400> 419

aaactggnnt atccctggtg tcaatgggag ctgngngnaa tactgncaca naaanagcng 60
cgggnttacg tcagcctnaa ncaaaagaaa aaatncaaga tgactaccat gcattgatga 120
acactctnaa tacacaaaaa ggngaaaactc nggaaattgc caacaaagtt tacgttatgg 180
aaggctatac attgaaaccc accttcaaag aagnngccac caacaaatnc ttagctggag 240
cagaaaactt gaactttgcc caaaatgctg aaagcgctaa agttatcaac acttggngtg 300
aagaaaaaac tcatgacaaa attcatgagt ngatcaaaagc cggatgatcta gaccaggatt 360
caagaanggn tcttgtcaat gcattgn 387

<210> 420

<211> 236

<212> DNA

<213> Ctenocephalides felis

<400> 420

aatatatttt ttgacatcat agtaacgacc tcctttgttt agtttggttg atccgacgta 60
gatggaactc aaacggcctg cgactagaca atgtgcagca gtaagaaccc atttttcatt 120
aagaatcgat ccaccacaaa aatgtttcaa gaatttatct nttaaagata cttgaaatgg 180
agcagaaccg gggcgggcgg tctgcnnctc cacaattctg gtgtgggtcat tggaag 236

<210> 421
 <211> 447
 <212> DNA
 <213> Ctenocephalides felis

<400> 421
 tnnntttttt tttttttttt ttttttgatn attagngata tttatttgag tagtaatatg 60
 gtttaatttg ttagttgagt atcaaaattt tgtaaaacat ctctcttag ttagtctcgt 120
 cttagtcatt gaaattaagg aatatcaaaa aatatttgta atattataag ttaaaaactct 180
 tatattccag tgtgcatttt gataaattct cttattgggt ttgaagccac tcgggtatat 240
 actcctggga tttcgggtcg tgcacatcct attccccaag aactattcc atgcagaact 300
 cccttagagt tgacgagtgg gccaccgcta tctccttggc aagagtcctt accgccttca 360
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 tgtgtatact ccgggactga ccgcccttgc acaccgctcg cccaagata cgatccccac 180
 aagagtntta ttttntnga caagtgaacc cgcgntgttt ncttggcacg aatccttttn 240
 ttcgtcaaga aatccagcnc aaagcatgtg ttntgtcaat gtataacgag cagcatacaa 300
 tattttacag aaagaaaagt caatcactgg tatagaaacn ccgcgaaggt tttccgaaaa 360
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<210> 423
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 <212> DNA
 <213> Ctenocephalides felis

<400> 423
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 atcttgacgt ntttataaga tttaataaat aaaaaacaat catagataaa aaatcataga 180
 tagataaacc atagaatgct gttcctttgt atggcaaaact gacaaattga ttttaatcac 240
 taccaaatta ttttttgtaa ctatgataaa atattctata aaactattcc tactaattta 300
 tgttatagat gaggtgatag tataggtcag tcagcatatg tgatatttac cagtatattt 360
 aagttgaaac cattaaattc agtattacgt gaaataaatg caaaaaaaaaa aaaaaaaaaa 420
 aaaaaaaaaa aa 432

09991936-12101

<210> 424
 <211> 354
 <212> DNA
 <213> Ctenocephalides felis

<400> 424
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 tccttggatc cgacgatctg gtagtgcaat tcttggagat gtgtttgtaa aactccgtcg 180
 gtagtagaat ttattcccca tccgacaaga gtagctgatg cattgtgttt agtttgttca 240
 ttggcttctg gcaaagtaac tggttgcgca aatttactat attttaaggg ttcagatagc 300
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<210> 425
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 <213> Ctenocephalides felis

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 accaaatggc tacttcagcg gttttggata aaccagttgt taactagaca aaaatacacc 180
 aagtgccaaa tatgatcctg ccaaacttt ccatgtttat aagtagtgcc aaacaaatta 240
 tcttcggcga ctgaaatatt ggacaacttg catgcatttt tgactatttt aaattgaaca 300
 gttcagcatt atttatgtct ggacagaataa cagaggcaaa acaaacaat gncgatcaaa 360
 tattacaatt cgatngnctc ttaatttgca taaatataga tattatacta attcaaaaag 420
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 aatatcgaca acataaga 498

<210> 426
 <211> 500
 <212> DNA
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<400> 426
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 gtgaaagtcc cagctatctc tcccaaagat tgtgctaagg ggtatccacc ttctggaggt 180
 aaagacaaaa ttacagacag natgttatgt gctggtcttn ctgaaggagg taaagatttc 240
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 cttcttctca atgcgtcgtg gacaaacaaa gtccaccgaa ggatttaact gttcgtgttg 180
 gaactagcac tcacaatgat ggaggaaaag tgtatgatgt tattgaaatt ataaaacatc 240
 cgaaatataa taaagcagtg ccagatgatt ttgatgttgc acttttacgg atcaaagagc 300
 caatatcatt tactccatgc acagtaactc ctgtaaaatt aatacaatcg ggaaaagaag 360

<210> 428
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 <212> DNA
 <213> Ctenocephalides felis

<400> 428
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 attacatcat cttgtgggta gaactcagaa agatcagatg agtaaggctc tggttcacct 180
 ggactgatgt tattgtctcc catatatgtg attaaatcac ggaagtcgac atcacattga 240
 attggatttt gtgaaaaatc aatagt 266

<210> 429
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<400> 429
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 actggatttt aatctcctaa actcatctca tttgttatat tgtaaattat gtaaataaat 240
 atgaaaaatg tataatgaaa atacttgta aataaaaagt acttttatta agaaaaaaaa 300
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 328

<210> 430
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 <212> DNA
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<400> 430
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ctagtcttgt aaatacattt ggatatggaa aacttggtgca atttctagtt gaaaaagctg 180
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<210> 431
<211> 549
<212> DNA
<213> Ctenocephalides felis

<400> 431
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aatcgtggat gttgaggaca ttacagtaca cgaactttat aatgaaaagt tcacaaatta 180
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tttgtgctcc gtcctggtgg agtcaaagac tctgccaggt gactctggtg gccctgctg 480
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<210> 432
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gtaaaaacat tggatggggc aatgttaact gtaccggatg gggatccaga cgactgggtg 480
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tattctcca 549

<210> 433
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<212> DNA
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 cctccaggaa aaatggtcca agtcacagga tggggtgcag aacaagctgg aggtcccgtc 480
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<210> 434

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 434

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<210> 435

<211> 465

<212> DNA

<213> Ctenocephalides felis

<400> 435

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 atcaattctg aaattagaaa aaattaaata gatatcaatc ataatttctt gtaataaaaa 420
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<210> 436

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 436

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gcacaccag gaaaagtcac tgttctcacc attggcaaaa cttttgaggg aagagacatc 420
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cacgcccgcg aatggatcac actgccactg cacttacatc ttaaacgaat tgtgactcca 540
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<210> 437

<211> 549

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<213> Ctenocephalides felis

<400> 437

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<210> 438

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 438

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549

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<210> 442

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 442

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<212> DNA

<213> Ctenocephalides felis

<400> 443

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<211> 549

<212> DNA

<213> Ctenocephalides felis

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<210> 445

<211> 549

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<213> Ctenocephalides felis

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<213> Ctenocephalides felis

<400> 446

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aaatgaggta tatgtccaat gatgaacact tcaaagctgg tggaccaatt atcatataca 240
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cagtccaaca taatggatat ttattctata cagagcatcg ttactacggt gaaagtcac 360
caacaccaga tgcttctacc aagaatcttc agtacttgag cgtggatcaa tcaactggctg 420
acttggttta ctttgtgatt atgtcaagag tcaaatacaca ggagccaaag acagcaaagt 480
aatcgtgtgg tggatcttac gccgtagtat ggtgttggtc cgctaaatat cctcccagtg 540
cgacattgc 549

<210> 448

<211> 520

<212> DNA

<213> Ctenocephalides felis

<400> 448

atgtggttgg cattcaggat gtaaaaggag cttgtcatgc cgatgaattg ggatatttat 60
tcaaaaatga gttgtcacag tttccaaagg aattggagag tgctgtggtg acacagaaga 120
ggttgttgag tttgtggaca aattttgcca aaaccgggaa tcctactcca tcaacaagca 180
atgtgttacc agtcaagtgg ttaccagcta ccaaggacca actggtttat ttatcaattg 240
gtaaaaatct agaaataaaa gttaatccaa tgaaagaacg tatacaattt tgggaacgag 300
ccaccaagaa agattatttg tcacgtttgt aatggaatat ttttaaggaa aattacctat 360
agaacaaata ctactttatc agtaagttaa gtatttcaac tatttaaaac cttgcatatc 420
ttgaattaac agtgatttga taactttttg cttttttacg attttaatat tatagtaaat 480
ataaatatga attgtgtttt taataaaaaa aaaaaaaa 520

<210> 449

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 449

aattcggcac cagaagtgc cgagttagaa gttctgtcgt tttatttgtg atatttgtta 60
gaagtttatt gtaaaaaagt agaagcaata aacatgaaga gtttgctgct attcgtagca 120
gtttttgctg ctgcagcaca cgccttacc acggcggaac caactacgac tgcagttcct 180
tgcacacctg gagaaaccaa acaagaggat tgcaatgaat gcatctgcaa agctgatggc 240

acaggatatc aatgcactga aagagaatgc aaacatgacc cagaatcaaa agcagacgat 300
catggaaaaa tttgcgaacc aggatcaacg aagaaagaag actgcaacac atgcacatgt 360
actcctgatg gtaaaaaacta tatgtgcaca ttgatgatgt gtggacatca tcatgaaaag 420
agagaaaactg aaattgaaga agtcaaagaa gtcaccattc aatcacttgc actacccatg 480
tctctggcca aaacaagatt ggattgnatc ttgcaatgcg cagggtnnga caggtctttg 540
accgccagc 549

<210> 450

<211> 154

<212> DNA

<213> *Ctenocephalides felis*

<400> 450

tgtgtgaaga atattaatga tgaacgagta tttgttggtc tctatgcttt gagtgcctgtg 60
tattttgctg gtgtcatggt tcgactgatg ttaactctga ctccggttgt ctgtgtgctg 120
tcgggaatag cattctcctg tctgctggac ttgt 154

<210> 451

<211> 215

<212> DNA

<213> *Ctenocephalides felis*

<400> 451

ctctagctcg ccatgaatct acaagagcct cgagagttgt tagaattgca gcagtgcatt 60
ttgcactacc cgaaggactc aacacgtgga ctctgtggc tgaaatgaga gaggctttgt 120
atggaaaggc taggaatatt atacaagctg ctcatgataa taatgttaat gtgctttgct 180
tgcaggaagc atggacaatg ccttttggtt tttgt 215

<210> 452

<211> 160

<212> DNA

<213> *Ctenocephalides felis*

<400> 452

ttatttccca atgcanatgc actgctggtg atttgactcg tatggctaca attgttgccg 60
acaaactagg tgcccaacct ggttggtccac caattacagc tttgaccttc ttgcttccat 120
tacatgccat gtttangcaa agggctctgg aattgggggt 160

<210> 453

<211> 322

<212> DNA

<213> *Ctenocephalides felis*

<400> 453

ggggagaatt tttagagatt ttagatgata gtagaaagtg gtggaaagct cgcaatattc 60
 gcggtcaagt agctcacgtt ccacatacca tagtcacacc tcatgcttgt ggatgcgatg 120
 atagttttca gagacaagac tctggcagat catctatagg cgccagttag ggcccgtcag 180
 gaccogtaca gagtccatcg tcagttgact ggattcgcaa ccagcatcag gtaaattggga 240
 acgagcaaaa aattgatcct ccaccacctc cgccgttgcc agtaggagaa ttgcgctcca 300
 gacaagaatc accggaaccg gt 322

<210> 454

<211> 210

<212> DNA

<213> Ctenocephalides felis

<400> 454

ggaagcacct taggctgtgc aggacatgta actgtatagc attttgtgcc cagagccata 60
 ggtccgcaat tatgacgtaa cggatcatat gcaaaatttg cggggcaata atattgggtt 120
 cctatactat ttctgtcaca ataataatag ctttgacaat cattttatatt tggataaaaat 180
 ctcgatggtg acggacattt gaaaccttgt 210

<210> 455

<211> 464

<212> DNA

<213> Ctenocephalides felis

<400> 455

gnagnnnntn cngccgtcag tgtgctggga attcggcttc gagcggggcg cccggggcaa 60
 ngtagcgtgc acatatattg atgtggcatc tcaatgtcta nccataggta atatacaaca 120
 taccctctgc aacttttgc ttcgagcaac atttcgaata agccgctgaa gaacggaagc 180
 tgggtgcacca ccagtaacag caccaagctg gcaataaatt actgctgtga atcccgcgct 240
 tgggtgaagct cctaaagcgt ccaggtagaa tggatatcgt gccacgaat ctgagaatct 300
 ggttaaagtc aaaagtgcgc caggattcnt attccatact agacccgacg gaacagggttc 360
 tcctggtaaa cgctcacgga ttatctataa taagtaatat aagttgtaat gattanttaa 420
 atttatataa ntaaatattg gntaacgtaa ttataaaact atat 464

<210> 456

<211> 292

<212> DNA

<213> Ctenocephalides felis

<400> 456

gtcattttac aagtgcatta ttttttagta aaaccttcat tatagtaata gcttggaaaa 60
 cataaatgtt acttcatttt tatatacacg gtgaatttgt tggaaatgga ctatataata 120
 aaaatatatt tcttcaagcc gatogaaggg tggttacaat taaaaaatat atttctatta 180
 tatagtctaa gagaaaaata ctctcataac tcctgtgtat ggtcttcggc aaacggggca 240
 ttcttttact gacagcgaac actttataca ggacacgaca tggccacaag gt 292

<210> 457
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 457
 aaaactcacc taaagataaa aatgttgctg ttcgaaaaca agaactccct gggcatgtaa 60
 cttatcttgc tgtgaattgt gatcatacag ttttgtccat agtgtaaact tctaattgaa 120
 actttatatt acaattttat gatgttactt catattataa acagacaata gtattagtta 180
 gcgaagtaag gctaccacgc ctttgtttac aaatgtcatg gaatccctgt atagcaaattg 240
 tagtagctgc tactttanaa aatggcacat tgttggtcctg tgaatttggt aatgggctga 300
 aaataaattc aacaggaaaa tgatgtgcaa gctttatcat tatcatggag cccgaangga 360
 aaacanattg tcattgggac aaaatctggc acattatgcc aattcacacc agatttgaag 420
 ccgtnaaaac atcagtgtnt ccnatatnaa agntccataa ttctgttcat ggtgagcatt 480
 atcagtttga gctacatt 498

<210> 458
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 458
 tgaaatgtga agacgacgtc aacgaatggt ttgacccaaa atctttctcg tgcagaactg 60
 catgcaaaag tgaaaacggt ttttccgac gaagagattg taaaaaatat tatcaatggt 120
 tcttggttaa caacaaatgg caaataaaac attatgattg tccaaatggc ttgcactttg 180
 ataaaacgga gttgcgatgc ataccacgc caccogcgga agaattgcaa agtgagattg 240
 ctaagtaagg cttaaaccag gaaaacaatc ttgaatagac taattaggat tcaaattacc 300
 ataaagtagt caattaatat aataaatata caaatgatct gtgcaattaa atataaaaaa 360
 tatgtataaa aattaaaatg tataaaattg tattttatgt aaggagcaca aacaaaatgt 420
 cattaactat agtaatttct gattatttaa aatatataaa tatagaagct ttataaaaaa 480
 aaanaaaan aaanaaaa 498

<210> 459
 <211> 267
 <212> DNA
 <213> Ctenocephalides felis

<400> 459
 cccgctgtcg gaccaaagtc gttcatagc tgctaaaagt tcctcggaaa atgcttctgt 60
 atcctccata cgttggatta cgtcaaagac cattttgccg tccgtctctc tttcattggt 120
 cccaaaacta atgcccaaatt tgggcatggc ccgcagtatg gcaaccagtg attgaatggt 180
 attactgtaa acaactggtc gatattgttt gaagtcttcg cttgtgaaac ccgactcatg 240
 gataattttc atttgtttta cgatagt 267

<210> 460
 <211> 351
 <212> DNA
 <213> Ctenocephalides felis

<400> 460
 ttgcaacaat gatacgggag tgttggattg taatgcacgc caaatttttaa ctgttttttac 60
 tgatgatgaa tggaataaac taatggatga ctccaaaact aacatcagtg ttgtgcagat 120
 gcaaaaataat gaattgactc atttattacc gtttcttgca cttgatataa aagttttaga 180
 cttgagtcta aacagaattt taagaattga gccagcaact ttcaaaaatc tccaaaattt 240
 gacagagttg aacttaagta ataacagggt gacatcaaag tttttaattc catcagtttt 300
 tgagggtgat tattctccag atgcatatga gccattaaaa tcgatgaaag t 351

<210> 461
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 461
 ctttganttc cnnctcnga agctcntngt gtgctncnaa tttgcggaaa cacctcagat 60
 tttagcggca gcggaagaaa tttgtggacc ttatgtcttg ggccgttatg atttacttgt 120
 tttacctctc tcattccctt atgggtgaat ggaaaatcca tgcttgacat ttgtaacacc 180
 tactctattg gctggcgaca gatcgctagt gagtgttgtt gctcatgaaa tagcacatag 240
 ctggactgga aatttagtca caaattgcag ttttgaacat ttctggctaa atgaaggttt 300
 cactgtattt gtagaataca aaattcaggg aaaattgcat ggtgaagatg ttagagactt 360
 tcattcgctt tgcggactca caacattgaa agaagagggt caactattag gtgaaaccaa 420
 tcaactgact gctctcgttg ttaacttaca aaatttaagt cctgacgatg cattttcttc 480
 tataccttac atgaaaggct 500

<210> 462
 <211> 176
 <212> DNA
 <213> Ctenocephalides felis

<400> 462
 ctgtcactgg ctgatgggtc gacgctcacc tacgatctat acaaagctct taatccggat 60
 aaacatgaag atgaggtaac tctggcagtg tgccctggca ttggtaactc ttcggagtca 120
 gtctacattc gcacatttgt ccattacgca caatattacg gatacagatg tgccgt 176

<210> 463
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 463

tgaattgatg ttcttccttt attaatgggt aacggtcctt gagatcattg atttcttcta 180
 cttttttctc atcttttaaac cactgatcaa caggaccatc tttcaatgga caggttagaa 240
 ccaatggact acgaatatca aaaagttttt gcgacgtggc ttcaccttct ctggcataaa 300
 cactgctttg gaccaaaaat aataaaattg cactacacaa aaactgcttc atatttattg 360
 aattttcttc ccctcgattg aaatagttca taagt 395

<210> 467

<211> 211

<212> DNA

<213> Ctenocephalides felis

<400> 467

ggaagcacct taggctgtgc agggacatgt aactgtatag ctttttgtgc ccagagccat 60
 aggtccgcaa ttatgacgta acggatcata tgcaaaattt gcgggggcaat aatattgggt 120
 tcctatacta ttttcgtcac aataataata gctttgacaa tcatttatat ttggataaaa 180
 tctcgatggt gacggacatt tgaaaccttg t 211

<210> 468

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 468

ncantggcca tttttatcag ttctttcttt atcaactgat tgttgagttt ttgctctnag 60
 tgtttcancn aattcttcan tagccgtctc caagaagacc cctcattcta taaacaactc 120
 tcattgattc tccttcgcat tgnncagcca accacacctt tttataaaact tctttcactg 180
 gaagatccaa actcatgatt ttgttgntga ccagtaattc cataccattg ncatcttcta 240
 ataatgctac taattcacaa tcttgacaaa tnttattttt aacatctctc attaatggcc 300
 aagaccaggn tcattctgga atatggatta cccaacatgc gaccctgtaa aaagtcttct 360
 tgttgaggat ccttctcaag agataagaaa aattcccaa tatcattttc ttctggataa 420
 taattgagca aagctttaaata tataaatata ggagttcgac atcntcaatg gatattatta 480
 ctgnttccat gccccagaca 500

<210> 469

<211> 251

<212> DNA

<213> Ctenocephalides felis

<400> 469

aataaatata attttattat ataagaaaca tatgtataac aatacaaatt ataactattt 60
 aacagtcttc ttgtgataat ttcttgacgg cgtatctgt agactttgat acaccttttt 120
 tcggtaagct ccagaacacc tgatccctgc cgaatacgtg agcttcagtt agcgtttccg 180
 gtaacttttg gtgtaaagtt tccggcaaga acattccgga agtcgcgccc accatcatca 240
 ttacggaaag t 251

<210> 470
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 470
 caataaatat tgaatttaca ggcttatgaa caccattaag agtaaaccctc aatttgatca 60
 cagcaccctt ctctcccaac tcaattttct tcgtataccc catgtaattg atatgattag 120
 ccctttcttc ttcttcgaaa taaacccaat tatgtagacc tgttacttca caatttttta 180
 attcagctaa gaaaacatgc tcaaattgctg aactaccgat tttgcccctc ctctggagta 240
 taaattaaac caaatcgttt tcaataaatc cttatgagtt tggggatctc tagtcacaat 300
 tcccttttca ataaaaaaaa tcataagatg tcgcatcagg ctggtggata acattgcatc 360
 taacaaaagca ttttcttcat ttctttcttg tgcagttaca tgttcattta ctgcagtatc 420
 taattcataa ttattaaata atgggttcat aagcgctata gttttaatat caaaagctgc 480
 tgattcacaa caagcaat 498

<210> 471
 <211> 105
 <212> DNA
 <213> Ctenocephalides felis

<400> 471
 agaggggtag cttttattcc atttattgat gacatgcctt cttttaatcg caaagtggat 60
 ggaccattta taatgcctgt tgtagacaag tataaagaca tgggt 105

<210> 472
 <211> 496
 <212> DNA
 <213> Ctenocephalides felis

<400> 472
 tttttttttt tttttttttt ttttgaacca ttttataaaa ttttataatc aantcantac 60
 tataaattta taataatatc aataacaaaa gttattttat agtagtcata atatactttg 120
 cattaatant tcatacacac acacacacat tacttgtctt ttcaattcca atttgttctt 180
 attctcgtcc ttgttcaa atgcatgttc aatgttgtat taagcattct atttgtant 240
 tagtattgga tttcttaaca tttaaagcagc ttctgatgat attattggca acgcattgac 300
 acaatgatan tttattaaat gtgaaatact ttcaaacatt ntatctctgg tgtcgaacca 360
 ctcccttagg atcaataagt aataaatgct tcttattaac tccttgaata ccagtcagca 420
 catattgccca ggacttgctc gtgactctng aactagaaaa tctncatnng ttttaccaaa 480
 ccctnagaac aactnt 496

<210> 473
 <211> 500
 <212> DNA

<213> Ctenocephalides felis

<400> 473

aaataattca ggagccccgc aaagtcagan ttctatatga ctttgaagca gcagaagang 60
gacganttga ccttcttagc tgggtgaaata atccatatgc tagatgattc acatcctant 120
tgggtgaaag gatataatca acatggagaa ggtttatttc ctgcaaactt tgtaactgct 180
gatttatcaa gttgaaccag aacanttttag aattgatgct aacaagaaat ctgttcantt 240
ttctgatgct gttcangtca aaactatatc tcatgatgat gaaaccagtc ctgaaattaa 300
tgaagaaagt atagatactt tattaatattt attacatgaa gcaaactctg aanatcctaa 360
tgatgataca gagcaaagtc tcaacttaga ngttcangta aataaaatgg gccctctgat 420
tgatgctgaa ttaagaaaat attgacagga aacatgctca acttacgcaa ttgagtggcg 480
atttagtaga agcacttant 500

<210> 474

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 474

tttttttttt tttttttttt tttttttttt tctgacagac tcgagctagg ngnaaaaaaac 60
tacattttta cagatgcgat taatgaaaat taaagtttgc tactaatcca catctatcct 120
tgattctggt tttgctgcta atgtgccaca atgaaattta gatgctctca tttntttaaa 180
actaagtgtt aaatcatcca ttgtaattgg tcgtagagca tcatgaaatt cctctctctgc 240
gtcttgatg tgtggcacca aaggtgattc agngtgcata taatctctaa ctntatacac 300
agaagcattt cggcataatt cccttaagtc tgatcctgaa aatccctcag tgagttttaga 360
taattcatnt aaatcaactt catctgaaat aggttcattt tctaaaataa gctctagtat 420
cttgaatcct tgntgncctta tgggcatgcc aatatggaat gnggctggca tacnccgnaa 480
aatgcttta tttnaatttn 500

<210> 475

<211> 462

<212> DNA

<213> Ctenocephalides felis

<400> 475

ttggtccaac tgtttgcat ttgtggatat attcaaaatc agccaatgct aatttttttt 60
nggtgttaca ttggcatttg ctacagcaca gattttttta gtcactgata tcttatttgc 120
ctatatataa agagaatata ccttgaagag tggcttgaaa cgaatattga aaggcaaacc 180
tgcaaaatta gctttagaat aattttatta taatgtttga attgaaatgt ntttganttt 240
aaatatgant taagttttaa ataaaagctt ttttattttt acattataat attatgccat 300
tagcctatat tgttacacag ttaaatttaa angtatataa taaatgggtt tacaactaaa 360
caaatacaaa acacacataa atataataaa aactggatga aaatanttga atatatatat 420
aantcgtnaa gaangtcaac cttctgnnat aatggagctt gt 462

<210> 476

<211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 476
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 tatacgggtct ttaaataaat aaaggtttct taaaaatgcc gctaataatc atgacaggaa 120
 taccagtag tggaaaaact catcgaacac tagaaataaa aaaatatctc gaggaagaaa 180
 gaaagaaaac agtacatgtg gtttctgaat ttgaagccgt cacaaaatca ggttattcaa 240
 aaaatgatat ttatcttgat gcccaaaaag aaaaaatcgt tcggggcatt ctaaaatctg 300
 aagtttttcg attattgacg aaggataatg ttgttattct agatggagga aattatataa 360
 aaggatacag atacgaatta tattgtggga gcaaagctgc acgagttcct caatgcacaa 420
 tttggacatc tataatctaaa gatgatgctt ggaagttcaa ccaaaattca ccttccatat 480
 caaaagaagt tttgtgagct ttgttttcgg atgaagacct aatccaacaa atcgtgggga 540
 tctnctttt 549

<210> 477
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 477
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 cggtttataaa gctgccagac atgcagtttt tacgaaaaac aatggagact ccaaactcgtt 120
 gtccagccct tgtattaatc ctatcatcaa aaacaaacct tgggtgtatg gcaacgttga 180
 gtacagtata agtggcactc cgctagaatc aaagaaatta gaagtagatt ggccaaaatg 240
 ccgcaaatata ttagcagaca ccctgttacc tctagtcgac ccaaaaccta taggtttaga 300
 agtacaagat attgcagcgt tcagctatctt ctttgacagg gctaccgggg ctggactgat 360
 agatccattt ttgggcggcg aaataacagt tggggaattt gaaaaaactg caaaagccgt 420
 ttgcaaaacc gcaaacaccg accagccctt catgtgtttc gatctaacat tcatatcggc 480
 ttgctaaagg acggattcgg attaaaacct gaatcgaatt aaaatactaa aaaagatcgc 540
 accacaaat 549

<210> 478
 <211> 417
 <212> DNA
 <213> Ctenocephalides felis

<400> 478
 gttaagagct gtcaaattat tgtacaaata tttctaaatt aaatacgtat atataattta 60
 ataaataata ttttactact atgaaaagag ccgcaaaaaa ctttctacta gaccgtctgc 120
 acaaaggcgc cgtcatggcc tgcatgggca tcaccgtttt gggaacactc agtcttggtat 180
 tccgagttta tcaatacttt actgatataa aacctgaaat acaaagaaaa caaatattgg 240
 caaagaacga gctgttaaaa gaaggagcct cggacatatc attatacgag agcaatatca 300
 cgttaaagga ataactccta ggatagtaga tatatttagt actgattact ccaaaaatgt 360
 atgttatata atgtaaataa gacttataat ttatttcaaa aaaaaaaaaa aaaaaaa 417

<210> 479
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 479
 gtttaaccgaa atccgaatta taaaattttat aaagtcaacg cagcaaattt tgaaatcgtc 60
 gatattgaat cgtggtacta cgatttagcc gaggcaaata aaaattctat tgtaaaccga 120
 gaatggaaac aaatgtacgg ttcattcaag acagagtttg gcttaaattc attgaacagt 180
 tcagagatgc acaggcttgt attgaatatg aaaaccaaca ataaacttgg aaaaaaatat 240
 tttgaatata aagttaaacg tgctgatcct gaattaaaaa aaggctgtga taaaacctgt 300
 cttaaaaatc atttgtgcgc aatagttacc acagttgtat cagatctcat ccagtgcgaa 360
 aatatcatca aatcatcatc aagcattctt cagcatttga atatatatgt cctaggagct 420
 attgtaatat ccaattatatt attattataa agtcattttt gtttaagttat tataaattag 480
 aataaatcat tatgtggaaa tatgtaacgc ttgaaaagct agacaaatca atattttaga 540
 aaaaaaaaaa 549

<210> 480
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 480
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 tttgcgtgtc ttttaacaatg gatgttgaaa acgtcgaagc atctggaagt gttccaaatg 120
 ttgctggaga tgcattgtggg gattctatgg tcacggatgg gaacgaaacc cctgcaagt 180
 ccactggcgc agcagggttta gcccaagaaa gagttaaacy taaagctaaa agaattgtac 240
 gacaaaatag tcgagaaaac gtggcctcag gagcggtgtt accacaacgt tcttggaana 300
 acagccgcag acctagaaat ggtcatggga gagggctgcc caaaaaaggt ggcgcggggg 360
 gtaaaggagt ctgggggatta ccaggctcag agctttttaga agagtatgaa gatataaatg 420
 atccaaactt tgatactgaa tgtataagtc acaaagatat agagttgaag gccgtattcc 480
 tgaagtttct gcagaagaat tcttgaaaaa ggctgacccg tattcttgat tttgacatgg 540
 gatcccaag 549

<210> 481
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 481
 ggnttattta attagaagac tgtaagttt tagaagatat gactgtagtt taacagttha 60
 tacgttttat aaatcagctt ctgaaacttt aatttcataa tgatttctgg cgattttcct 120
 gaggaccag aaaaggagct gcagagttta gaagatgatg ttgttcaaga aattctcaaa 180
 actggcactg atctgagaca atactcgaaa caaatagaaa aagaactgaa agatgtagaa 240

aataaatcta tacaggatta tattaaagaa agccaaaata tagctagctt gcacaatcaa 300
attggggcctt gcgatgacat ccttgaaaaga atggaagata tgtaaatgag ttttcagagt 360
gttttaggta atatcagttc tgaaataacg tctctacaaa aaaaatctgt ttcaatgtcc 420
attcaattat caaataggca ggctgtcgag gagatctctc acagttatcg aagatatttc 480
tgtactcaaa gtctgtaccg gaattttgga taccagtagc tgagaaagat tataactcag 540
ttcaaatac 549

<210> 482

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 482

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tggaagagacc taaagcttgt ggggaatata ctattagatt ttatgcacgt gattctggcc 180
ttctcaagtt tcgaatatat gcaggagctg ttgctaaaac accacctgca gccactagaa 240
gattggtagc ttttacattt catcctaata aaccatttgc cattagtgtt cagaggacaa 300
attctgagta tattgtaaac tttcatgtca gacatgctag ctagttttta caaattattt 360
gcaaaagcta aaaagggttac atgatgtaat caattagggtg ggtgttgaga agatttgaag 420
gtaattttta ctcaaaacat atctttataa tgaaattgna atattaacat gcgcatatgt 480
tgtgatcaat ttaaagtggg atagatgatg tgcctttgng cagggatgna gttgattatt 540
atagatatc 549

<210> 483

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 483

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aataaatatg aaagcaattt tgataacatt gatagtcgcc gcggctgtgt attccgtaag 180
gcctgaggtt ttcctggaag aaaacttcgt agacgatacg tggacaaata catgggttta 240
tagtgaacac cctggcaaag aattcggcaa attcgtgcac actgccggaa agttctataa 300
cgatgccgaa gcagacaaag gtttgcaaac aagtcaagat gctagggttct acgctctatc 360
tcataagttc aaacctttct caaataaaga caagacatta gttgtcaatt ttctgttaaa 420
catgaacaaa acattgactg tggaggtggg acttgaaggt gtcgattgaa gttgaatcaa 480
aaggacatgc atggtnaagt cctatgaaat atgtttggcc tgcatttggg ccaggaacta 540
aaaggtccgt 550

<210> 484

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 484

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ttaaagtccc tcgcactcac acgcacggca ccactatgtc tacggtcgac aaggaagaat 120
tggtgcaacg agccaaactg gcagagcagg ccgaaagata cgatgatatg gctgcggcga 180
tgaaggctgt tacggaaacc ggtgtggaat tatccaatga agaaaggaac cttttatctg 240
ttgcctataa aaatgtggtt ggggcgcggc gttcatcatg gcgtgttata tcctccatcg 300
aacaaaaaac agagggttcc gaaagaaaac aacagatggc aaaggagtat cgggaaaaag 360
ttgaaaagga acttcgtgaa atttgttacg acgtactggg ctttcttgac aagtacctta 420
ttcctaaagc tagtaatgcc gaaagtaagg tttctatctt aagatgaagg gagatactac 480
aggtatctag ctgaagtagc aacaggagaa acccgtagan cgcgtagatg atcacagaag 540
ctatcaagat                                     550
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<210> 485

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 485

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gcgtcgggtg acacctggag cgtggccaga gagattgcgg cagctagcac ggtagctgat 120
gaagaagatg cattttatgt gtgtgatata ggggatatcg ttaagaagta tcaattgtgg 180
aaggagcata tgccgagagt gcgaccatth tatgccgtga aatgcaatga cagtccgatt 240
gtattggacg tactggccgc actcggaaacc gggttcgatt gtgcgtccaa ggttgaaatt 300
aataaggtgc tgccaatggg tgtcaaacca gaggacatcg tgtttgcaaa cccttccaaag 360
ccggcgagtc acatcaggca tgctgctcga cgggggtggc gaagatgacc tttgacaacg 420
aatacgaact tcataagatc aagagattht acccaaatgc cagattgatt attcgcatte 480
gtgtgattct gaaattgcca atgccactcg gaatgaaatt ggctgcgatg cattcaatga 540
accccgcgct                                     550
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<210> 486

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 486

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atcggaata aataaatgtg gcgatacatt aaatcttcat tattagtga caaggaactg 60
atttaatatg gaagataagc ctgtgaagcc atgtaaagag aagcgaagga acaatgagaa 120
gcgtaaggaa aaatcccga atgctgcacg ataccgcaga tcacgggaga ccgagattht 180
cactgagctg gcggaatgth tgctcttgc taaagaggac acggaccatc ttgacaagac 240
ctcaataatg cgactgacaa tctcgtatth gcgaatccga gctgccgtac ctcaaattgt 300
tccagaagag gatatthtgc caacctcatt atcgaataag gacaatgaaa acttcttatt 360
acaggcgctt ggaggattht tgatcatgat ctacactgaa aacgatatcg tatacgtatc 420
aagcaatgtc aacgaatatc ttggaattac tcagatcgat ttaatgggtc aaagatgttc 480
gactcagtha tccttgtgat cataatgaat taaagaacco ttccccaact caaccacaaa 540
agatgntac                                     549
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<210> 487
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 487
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 ttttaatctgt gtttgaagat caagtgatat aatttagaat aaagtagttt caattatagt 120
 atgtccacaa tgaatccaga atatgattac ttgtttaaac tgctcttgat tggtgattca 180
 ggtgttgga aatcttgtct acttttacgg ttgvcggatg atacttatac agaaagttat 240
 ataagcacia ttggtgtaga ttttaaaatt agaactatcg acttagatgg aaaaaccata 300
 aaattacaaa tttgggatac agcagggtcaa gaacgggttc gaactataac ttcacatata 360
 tccgtggggc acatggaatc attgttgtat atgattgcac agatcaaga'g tctttcggaa 420
 atgttaagca atggctcgaa gaaattgatc gctatgcttg tgatagtga ataaatactt 480
 gaggcaacca agagtgatta actccnaaaa agttgtagac tcactntgta agaattnctg 540
 ccagntaga 549

<210> 488
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 488
 cagcgatcag atttaccaga cacatctcat tggcaaagtt caatttccaa agatgaagct 60
 gcntttgaaa tagactactg caatcctcaa tcaagcaatc aacattcgaa gncaactaaa 120
 gataataaca atgacggtag tactgntcca gacgaagatt ttttttcgct cattatgaaa 180
 atacaaagtg gaaggatgga tgaccagcga gcaagtataa atataaaacg agtaatatag 240
 aactctactt taataattgt aataatattg tatatggatt attagattac ttttaatact 300
 agaatatttc caatttttta atatcatttt ttgtggatta catacataga atagtctggc 360
 tatcgattgg tactttgact atgaattggt gtacctttga accgcaacaa tttctaatat 420
 aaaatgagta gaagggtttat tagcgacata atagtgcacat tgctataata tagcatttaa 480
 atcaaacaaa ttaaaaatgt gattttatta ataggtacta tcataaagtc acaaaagccc 540
 ttccggtac 549

<210> 489
 <211> 547
 <212> DNA
 <213> Ctenocephalides felis

<400> 489
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 cctaccccaa atctcggttc tgcgtggtg tgccagacgc taaaattcgt atcttcgatt 120
 tgggtaagaa gaaggcaggc gtagaagatt ttccactatg tgtgcatctt gtatctgatg 180
 aatatgaaca attgagttct gaggcactgg aagcaggacg tatttgctgt aacaaatacc 240

tcgttaagaa ttgttggtaaa gatcaattcc acatcagaat gaggtctgcat cctttccatg 300
 ttatccgcat caataaaatg ttatcgtgtg ccggagctga taggctccaa actggaatgc 360
 gtggtgcttt tggaaaacca caaggtactg ttgctagagt tcacatcggg caaccaatca 420
 tgtctgttcg ttccagtgc agatacaagg ccgctgttgt aaagctctgc gtcgtgctaa 480
 gttcaagtcc tgcagacaaa gactatgttt caagaatggg attactaatt tgacctgatg 540
 ttatana 547

<210> 490

<211> 353

<212> DNA

<213> Ctenocephalides felis

<400> 490

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 aaaggttgca ttaaataatg aactagcagc agccagagtt tcaactgatg ttggcattaa 120
 agtaggagaa gccctcagga atgtagtgga acttcgttta gatttgggaa aatgttcttc 180
 agacaatttg aataaatggg aatccagatt ggaagaaatt aatgatgttg tggaaaattg 240
 catcgtgtga aattgtaact tgaaataatt tttcttaact attagtttta tagatgaaca 300
 aatacataat ctaataaacc agcaagtga aaaaaaaaaa aaaaaaaaaa aaa 353

<210> 491

<211> 373

<212> DNA

<213> Ctenocephalides felis

<400> 491

ntgnttccat ccatattcat cacccaaatc acgttccata tcactctatt cctcatcttt 60
 actatanctt gcataatctt tgcgtantgt tctcancana atcatagaca caagtcctac 120
 taaaantagt accancatan anctgttana tangctgaac caatgtatcc tatgttgaaa 180
 gaagttanga tccaantact tgtcaaacct attttcaanc ttgacattgc ngggtttcca 240
 tgtcactttn naagtnaann tcanaacngc tccagtttta nngtagttct ttcttacnan 300
 atganacant cacatctacn anttgcgtgn cantatatch annnncaaatt ttcttgtgtg 360
 tgtagacnta gtt 373

<210> 492

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 492

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 tataaagata tgagatttaa gaacaattga aaatttacta tatatacata ttacaaaaat 120
 tcaataaatt gttattcttt gtcaaatacg ttgttctttt tcatgattac gatcattgtc 180
 agctgggtca tgtttcacat gtgatgtgta tatatcatat cccaaggata ttgtattatc 240
 atataacact ctaaacttat gaggtaatat ataaaagttt atgatttggg ctggcggcca 300

aactacccat tcagcagcgt aaagcctcca agcctttttc ttaatttctt ctattaattc 360
 atctttacta gttttttcta gtatagctaa tgtaataaag aacatagaaa tgcatattgg 420
 tgagcataca atttgatcta tcacaacttt tttcatgact attcctattg tgcgtcctgg 480
 caatcgttta tctagata 498

<210> 493
 <211> 308
 <212> DNA
 <213> Ctenocephalides felis

<400> 493
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 gtgatcatga taagtgccga atatgctgac gtagatgtgt gccaaagattt ggacgatgga 120
 acttttcttg ctgattcaaa caattgccaa aatttcttca tttgtgatgg aggccgagct 180
 tggaaaatgt attgtccagg atcactttta tggaaatgatc acgaaggaac atgtgattac 240
 gcacaaaatg tagaatgtta ccaaccagaa taaaacattt taatatcaaa aaaaaaaaaa 300
 aaaaaaaaaa 308

<210> 494
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 494
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 tgtattatgt ttatatatgt aaacgaatta taatttttgc tctttgatta cttctactct 120
 ggtgcattaa cttttattca actagattaa atttttgggt tacttcctat gcctcacatc 180
 agtgtccttc atgtgatcag gagtattttt tcatctgga ctttgatctg tatcactctc 240
 ctccatttca gctttgttgc gtttcttttc ataaatgaga ataatcgcg ataaaattat 300
 tacttcagca cagatcccaa aaatggccac aaagcagcta atttatcttg aactcgaacc 360
 aaggntgtag aattaacagt aattccaatg ccttgattag tagcaatata tgtatattct 420
 cctcgatcgc tttttcagcc aaatcaattt ccaagcagaa tttggttatt gcatgatcaa 480
 caattgatcg acgngtgatc 500

<210> 495
 <211> 244
 <212> DNA
 <213> Ctenocephalides felis

<400> 495
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 aaaagaattg ggatttgtgc atttcatgac ggtgcaatca gcttctgacg atttcttttt 120
 acacatattt ttagaatgat catatacata gttagggtggg cattcgaaaa cctgaccttt 180
 accatctttg cagaataagt atcttgtgca gtctttcgga tctggctgat atcctacaac 240
 cgcg 244

<210> 496
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 496
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 ccaataacaa acgcatttat ttcgacagac cttctctcaa gtttcaacac ttccaaggtg 120
 ttactgtata tacaccaaca tacatcttga atcagtcctga agttgttata atgtttgctt 180
 ccggagccgg agtagaagtt gtagaaaatc aaggatttat gactgctaga gtttatttac 240
 catggacatt tattaataaa actgctggtc tactcggaat ttggagttgg gatatggcag 300
 acgactttgt caaacctgat ggaacttttg tgccctgttaa tctcaacagt tttgaatctg 360
 ttcataaaga tttcgcacgt cactggatgc tggcggatcg tgnaaatgaa cacctcggag 420
 cngnactctt naattcgnga atttggctgc ncagccagtt attatgcaaa ttcctcattt 480
 taccaaactg ggttaaagaa 500

<210> 497
 <211> 411
 <212> DNA
 <213> Ctenocephalides felis

<400> 497
 ttgtcattnt tgttctactt tgaagttgtg cgctggacaa gaaaccccaa ttacaacaat 60
 caattgtaga gactcaaatt ccgatgctcc attttgtgta gatgatatgt gctcatcaaa 120
 acctggggaa aactgtaaga cggcagaaac tacatgcgcg gntgnaggat atcagccaga 180
 atccgaaaga ctgcacaaga tacttattct gcaaagatgg taaaggctcag gttttcgaat 240
 gccacaccta ctatgtatat gatcattcta aaaatatgtg taaaaagaaa tcgcagaagc 300
 tgattgcacc gtcatgaaat gcacaaatcc aattctttta tacctatgca ccggcccatc 360
 aatttatgct tgggtgcaatg gcaaaatgga cccgatcggc cctggaatgg g 411

<210> 498
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 498
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 gggcatttcc atttcagttt ttgctaggca taatgctttt tcaaacattt caattgcacg 120
 ctcaagattc cctcgttgaa cctcaatagt tcctaaagtt tcatagccaa attcacattt 180
 gggatcaagt gaaatagctt cattaatcaa ttgaactgca gtatcaacat cacctgtcca 240
 ttgcaacctt agtaatcctt tatgaacata aacaatagca ttattaggct caatttcaat 300
 ggcttttagag aaatatgaat ctgcttttga gtattgtctt tgatcacaaa gcacttgtgc 360
 atataaagna tagcactcta tacagagagg aaatttttta atggcattgn caaaggccca 420
 attatttctt ttgccttatt catgtcntaa cagcaaaagc atatcgatgg tcgtatatat 480

tttttggaca taagccat

498

<210> 499

<211> 598

<212> DNA

<213> Ctenocephalides felis

<400> 499

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aacttataac tggagatgcc ttactctatt ctatgtttcn agaanaatca gttcccgtga 120
cttgcccttt gaaaggacct ttcacattca catataatan gggacatggc gaatgtatga 180
atccagtatc gaacattgaa agttgcactg aagacagtcg acttatttta acataccagg 240
catgtccgga tgttcatgga actgaaagtg cantggaaga actggagtgt ctagcaacat 300
ggaatgaagg taatgctcga tacctggttg gtaaaatgaa tcatcgacat gccataacca 360
gtgaagatcg atacagatgc tttgtttatg agaaaataac tggaattgga gataaagtaa 420
tggtatacaa attgcacaat catgagatgc tacttgcaat ggattgttta gtgctacaga 480
aggtcacgga caatgacttt aanacaagct gctattcctg agcgggtgtcg tttccgaatt 540
ggttanctgc tggaccatca cactggcaaa cagttgataa tcacaantta ctggttca 598

<210> 500

<211> 462

<212> DNA

<213> Ctenocephalides felis

<400> 500

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tcatcagaca ttcccataga taaattaact tcttttggtt cttaaattta ttccttgcac 120
aattgctcac gacattgttt taaagtgaga aaatctgggt tgggtcctaa acttgtatca 180
tagccatatt ttccaatagt cattaaacca tcaacaagta gggttgaggca attttctttc 240
acatatttgt atanagttgt tgcttcattt ggggtgaacac catgtttttc tatttcacca 300
cttgtantta tttgaatcat aactontaat ttatcaccat gaattttatt agctgaatct 360
aattttgacc aancattctg cacactgtcg ggntaattta aatgagtga tttgtttnac 420
cacnatatat cncaggtatg ttaacacctt aanaatttta nt 462

<210> 501

<211> 216

<212> DNA

<213> Ctenocephalides felis

<400> 501

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tgnacgaatg atgaaataag cccatccaca actgctccaa gttcaaactg gaatgaaagc 120
aatggaaacc tcaccgaatc acaaccctta agccaaaata cttcaacaaa tactccatta 180
gaaacatcaa atacctcact agcagaaagc agcagt 216

<210> 502
 <211> 489
 <212> DNA
 <213> Ctenocephalides felis

<400> 502
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 caatcctata atgccatttt catcaaaggt attgtattcg taataaccag cccaagcact 120
 tttaacttta attgcttcaa aacatggaac acgatgtgct aaatgtggcc aaacgttttg 180
 ttcaaaataa tccatatcta catctaagtt atcgactggc gggtccttgt caggatctgg 240
 tgaacgacca cagatatatc tgccaccta tccatctctt ctaaaatatg tatttggttg 300
 atcgattgtc agagggtgat ttaaacctgg aggcgaatga tgttgacact caaagctata 360
 cacatatctt tccacaggta aaggaattga cagcaatcct tctccagtac caatttttagc 420
 taatctggca acatgaccag actgangtcc tgcagctatg acacatattg caaactttat 480
 tgggtataa 489

<210> 503
 <211> 425
 <212> DNA
 <213> Ctenocephalides felis

<400> 503
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 aaaagaattg ggatttggtc atttcatgac ggtgcaatca gcttctgacg atttcttttt 120
 acacatattt ttagaatgat catatacata gttagggtgg cattcgaaaa cctgaccttt 180
 accatctttg cagaataagt atcttggtgc agtctttcgg atctgggctg atatcctaca 240
 accgcgcatg tagtttctgc cgtcttacag ttttcccaaa ggttttgatg accacatatc 300
 atctacacaa aatggancat cggaatttga gtctctgcan ttgatngttg taattggggg 360
 ttcttggtcaa gcgcacanc tcaanntaga ccantcgtgn caaangttcc caactgctta 420
 ttatt 425

<210> 504
 <211> 203
 <212> DNA
 <213> Ctenocephalides felis

<400> 504
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 agtctctgaa ttctgtcagt gtggggccta atgttaagtc ggagtgcgtg caatttaaaa 120
 gaagacttag aattgcttgg gttgcacatg cattgttgat cacctgtttt gcaaagaata 180
 ttttatcgag tctaccatca tgt 203

<210> 505
 <211> 317

<212> DNA

<213> Ctenocephalides felis

<400> 505

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attggagaat ttggattttt cttaacacct atgataggca aacaaaaagt agcttttaat 60
tcaggatggg taacatgtgc ttttttgaac ctaagagcca taggtctgat aaatctttcg 120
aattttggag gtttacgtgt aaagccttca ccaacaaaag taacttttgt aaccattctc 180
ttccacgctt tccttctgga ctttcctgat gataaaactt tgaatacttc agcatctgcc 240
tgagctctga cttttggata ngcacatccc attttccggc cttctcttta cgtttctgtt 300
tgatcatatt agagagt 317
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<210> 506

<211> 518

<212> DNA

<213> Ctenocephalides felis

<400> 506

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ctctaanaat cattgacgct ttttcntttc tttcactgcc tttgttttan atggttgtcc 60
tcggttcana aaagacgtaa ngacttctga catttctggc atatcagaca tctttgtgaa 120
actgctgagt tgctccattt cttttttagt ttcaggatca ttcattcatt tcggtaaaaan 180
cataattaat aataatggca anaccatcat taatatcata tgattgaata ggaaatcagt 240
gattttccat tgttccctta cttgaaaata tctgaatttt cctaattgtc ttaattctaa 300
agggtatggc acttgatga cttgagatgt ttgtaagtga ttcactttgc gtgctcngaa 360
ttttccttta nagttaattt ctactctaac aggctcatac atataantt ngttaactgc 420
atccaanacg tangatccag atgggacatt anttataaca aangtgccgt ctcnttcaaa 480
aaacctctgt atnancccc gttcaanant attttggg 518
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<210> 507

<211> 373

<212> DNA

<213> Ctenocephalides felis

<400> 507

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ttttttanct aantgtatgt cagaaaatgt cactaaagca acacctgtga tgcttaaaca 60
aactgcaatt aatttggata tagtaaatct atctccgata ttacaagga ataaagcagc 120
taaaacaagt gtgaataaac ttgacgttga agataaaact gtaaccgtan cagcttctgt 180
ttgtgataat gccagctgaa atgtgtaatt agcagcaaac cacaataagc agaataacaa 240
agcaattttt gctattcttt gtgtgggcaa acgatttgcg gcccgcctg cagcctcgct 300
tgcccttaaa cttgcgtggg aagataatct tgccaataat gcttctgttg ctcnattatc 360
acgcatttgc cgt 373
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<210> 508

<211> 430

<212> DNA

<213> Ctenocephalides felis

<400> 508

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ctctccatga gctgcttttg gcggtgcent tgggtgcctct ggcataccgt tttcttgggt 120
ggagacaacg tctgaagtca tttccattcc ttggttcaaa tcaccatttg atttagcana 180
atgaggaact tcatctttat ttttcttggg tgccatcana tatnatgggt tgcccaanga 240
gcatgagcgg natacagcag agcccaatta acacaaatat tttttgaatt tgctgttgtc 300
cttcanacat aaattcatcn caatgttctg ctggngatcc ttgcttgaat aacatcatgt 360
tnatgaatca gnatcaaaac tgatggtgng cagcatgggt canatctgat gtccgtacta 420
tttgcagagt 430

<210> 509

<211> 498

<212> DNA

<213> *Ctenocephalides felis*

<400> 509

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aatgcgacaa aaacattaaa cttattgata aaccactcaa gaagcaaatt gtagttttat 180
cagaaaatga ttttgatgac ggctgtccaa aatcgaatac taataataat aacgaccca 240
aagaaatttc ttctcatatt tgctaccttc aagatagcga ttttaataacc agatcagatt 300
taagtcggat catgactccg aaacatattt caacaccaga aataccaaag tctaacgcaa 360
ataattatgc gacttttagat cagagtttcc atttaggtca aaacgttcaa aatgcgcaaa 420
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<210> 510

<211> 500

<212> DNA

<213> *Ctenocephalides felis*

<400> 510

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catttccttt ttagtttcag gatcattcat cattttcggg aaaaccatga ttaataataa 180
tggaacacc atcattaaaa tcataggatt gaataggaaa tcagnaattt tccattgggtc 240
ccttacttga aaatatctga attttcctaa tgnctttaat cttaaagggt atggcacttg 300
tatgacttga gatgtttgta tgtgattcac tttgcgtgct ctgaattttc ctttagagnt 360
aattttctact ctaacagggt catacatata atttgagtta actgcttcca atacgtaaga 420
tccagatgga acattactta taacaaagggn gccgtcttct ttnaaaaacc ctctatatata 480
gcccccggtc accaatattt 500

<210> 511

<211> 208

<212> DNA

<213> Ctenocephalides felis

<400> 511

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cataaaatga tttctctcaa tgaaatttaa aaatttctta atcgttttta aaaaataaat 120
ttatgaatcc catttcttat actccattcc atctgngnga cgaacctcaa ctttctcttt 180
gccacctcg ttccaatttg ngctaagt 208
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<210> 512

<211> 355

<212> DNA

<213> Ctenocephalides felis

<400> 512

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cctttaccaa atatttttagc tctgccactt gtcttattag cagttaacca ttggttgaat 120
agtaaagaaa aatattttat catttattcg gcatctgcaa tattaatatt tcgggctgag 180
ttagctcttc tactgggatt atttctgcta tatgatctta ttcaaggaag agttcagatt 240
ttaagattaa ttaaaatatg cttgccaaac gcagctattt taatcacatt gactgtatta 300
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<210> 513

<211> 518

<212> DNA

<213> Ctenocephalides felis

<400> 513

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tggttagattg ggcctgtat ttattaggac gaagaaaatt gaacatgcca ttccttctat 180
tattttttat ggcatttggt gtggtattgt cactaccatt tgggtgtatct gaagtttctc 240
ttgtgtcaga caaatgcaac aaagtcgcac gacctccatc taaacgacta ggcccccaac 300
ctgaagtgtg tgcatattca ccagtatgcc ttcgcagact gtcattagca tgtgatccat 360
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tattccgatg ataatcaggg tttgttgatg ttctaattgg cacaggtgga ggcggtggtc 480
taacgctgac agtgacagta tttgaatact ggggtggt 518
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<210> 514

<211> 382

<212> DNA

<213> Ctenocephalides felis

<400> 514

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aatagctata tttgttgogt ctaatgtatg atccccagac caacaaaatt gagcatgtgc 180
gtgcatcatt tttattgttt ccaatctagc tttttcattt ttaggtgggc ttgaatgatt 240
aacaaattct agagcatctg cttcacogct gtgaccaa atatacact ggaatctatc 300
ttogtgaccc tcaaaacttt ccatcagaag aactactgct tctaattgct atctaagcgt 360
ccatcatatc cattaaatct gt 382

<210> 515

<211> 489

<212> DNA

<213> Ctenocephalides felis

<400> 515

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aaagtgcagt caacttttagc tacgttaatg ntagttgaac cgacaacctt tttagctaag 120
tcatcccaag taggtgctaa cctttttacaa tgtccacacc atgggtgcaa aaacttgaca 180
aaagtccacac cctttgaaat gccttggtca aagtttgatc ccacaagatt aaagacacct 240
tcttcttcat tagtgntcgg aatgcganta tcatctctat cttcatcatc aatttgtgaa 300
gcacatggtt tcttctcaac ataagccttt aattcttcgt gattcctttg ccagagtatt 360
tttccacctt tttccatctt caatccataa taaagtagga taacctttta cttcaaattg 420
tgtgcaaatac gggcgngngt gagtgcagtc aatttttagta atgcttacag agtcttcatg 480
ttcaaaagt 489

<210> 516

<211> 309

<212> DNA

<213> Ctenocephalides felis

<400> 516

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ataattgata ttaattatgc attaatcatt gnatttatac tttcctagaa aactatacat 120
cacatgttga aacaaattaa ggttcatggc ttctgcctt tccttagcgc ttgttttaaa 180
tttgatccat tctttccgaa tcttggtact ntttggtccc catttntcat tgggagtga 240
cacgtttttc aatgtatcat taatggaatg ttttctattt ttcaaata tccaaattgc 300
ccaaagngg 309

<210> 517

<211> 215

<212> DNA

<213> Ctenocephalides felis

<400> 517

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agcataactc ctgctgttcg ataaaatcga tgcgatttta cccgattctg ttttgctcag 120
ggttcgcaaa gtggaattga ttacggagtg catcttgtaa taaaatgtat agccagttga 180

gttgaattaa attgatctca cctgtaagct actgt

215

<210> 518

<211> 275

<212> DNA

<213> Ctenocephalides felis

<400> 518

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attgcatttg gtccaaaaat ctcaggctta taatattggc ccacagaaga atatcctggc 120
ctgtactgag aaaatgcgta aggtggtgga tggtaatcac agttcgccca ttggacaatc 180
gagatggcca ccaaaaaat tacagctttc attttagtca cttggtgaaa taccacgaat 240
tgaaatattt caaccttcgc aaaaggagct tgtga 275

<210> 519

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 519

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aaagggtgtca acatctacca gcatattcaa ttttgagaga aatgtattta gatcaaataa 120
ttcgcagatc tgacttgag gagtttgaag cgtttttaca gcctcatcaa aaggcatcta 180
ctntggatgg gtcataaatt ctggatcgng ctgngtttg acataatttg ntttctggca 240
gcaaattgta taataatata acttttgaag aggtaggatc tttanttgga atnttagntn 300
gcaaagnngn naaaattncc gccaatgnta ttaaaagggn gaatgnatgg ggcntnaatn 360
anattgntna cattggcctt gggcgcgac cccttaggcg aattttngga tattcantac 420
actgggggcg gttgngntnt gttttagggg ccaattcnct tatngngngn gtttaaatac 480
tngcgggggt tacaannn 498

<210> 520

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 520

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acattgatca ggaactggct ctcttttagg acgtaaacac gtgaagaact tccggcatgt 180
tgcgctggtt ttgaaagcaa attttccacg tgctcgcat tgcccgacac aggtttcgct 240
ccttggggaa aactcggcg gttcttcgca ttgcaatacg gttcctcttc cggccataca 300
tacgacgtac aatgatttat caccaatgta cggaagcacc ttaggctgtg caggacatgt 360
aactgtatag cattttgtgc ccagagccat aggtccgcaa ttatgacgta acggatcata 420
tgcaaaattt gcggggcaat aatattgggt tcctatacta ttttcgtcac aataataata 480
gctttgacaa tcatttat 498

<210> 521
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 521
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 ttacctttac atatgtgcca ttaacacaat gtgctagaat agatgtagct ataaacgagt 180
 tgtatgatgg ttcttatggt ggggcacctc aagatttgct aggcccttct ggatttgcac 240
 tttcagggaa tggaccgact cgaagaacta ttgttacaca tatattagtt tgccgaccaa 300
 gaagaagtaa acccagttta tcagaattct tggaattgga tgaaaatgaa tgcgacagcc 360
 aaagacctta cattacaggt cacaatcgct gtatcatcat acaataacat gcctaccgat 420
 tcagctaaag aactagatgt tgattcagaa ngagaaagtg atcctttgtg gttaagnaaa 480
 agacaatgtg atgatagacg 500

<210> 522
 <211> 312
 <212> DNA
 <213> Ctenocephalides felis

<400> 522
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 gcacacacaa ttcttcatca tatcttaaatt ttcttttttag tgaatagcta taaataccct 180
 ttatcatttc taaatgagtg catttaaaaa cttttcagga cattttaatg taactaaaac 240
 tgcagcagaa gaatgtgtat gtattacagc acccgcatta tggtttctgt atgcaagcat 300
 aaataatggt gt 312

<210> 523
 <211> 258
 <212> DNA
 <213> Ctenocephalides felis

<400> 523
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 tccaaaatgt ttttattttt gtttttattt taatagtttt atttaaaatg ttgttggtgt 180
 attatatatt cagtatttta aaaaataata aatttactcc cgttgctaaa aaaaaaaaaa 240
 aaaaaaaaaa aaaaaaaaaa 258

<210> 524
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<212> DNA
<213> Ctenocephalides felis

<400> 524
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gttcaatcga atccttccta aatgttattg aaactgaaga agcacctcca acctttaata 120
gaactaacia attcactcaa gggtttccaaa acttgataga tgcctacgga gttgctagtt 180
acagagaagt aaatccagct ctgt 204

<210> 525
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 525
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aatttacgca tagcacatatt cgctcgtgca aatctcttcc tcgcattcca gacaagtttc 120
cttatcgcatt ttgtaggtgt cgggtgcagcc tctcttcact ttatctccgt caatatctaa 180
gtagcatttg cccatgcatt tggctctcgt ctcgactttt tcaggggtcgt caaggcaatt 240
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tttgtcacia gttgggcaac gttctgggtt tttctcgac atttttttca gattctggtt 360
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caaacaagta tcttgnggct tgagacaaac ttccttgga tcatctttag cgttgcaaac 480
cctgcgattc ttgggaaaac 500

<210> 526
<211> 259
<212> DNA
<213> Ctenocephalides felis

<400> 526
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caccaccggc gccccatgct ccaccacctg ctccgctacc agctcctccc gctccagcgc 120
ctgctccgcc agcacttctc gcagaacggg cgagagtatc tccagccgcc tgttgggaaac 180
tgaacgattg agcattactt ccgccatata ctgaagaacc atatgcggat cctactggag 240
gcacatatgc ggtgttagt 259

<210> 527
<211> 549
<212> DNA
<213> Ctenocephalides felis

<400> 527
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tcaaaaagat tcaaggtatg gtaatttttc taattgtgaa caaagtctaa gaagtacaa 120

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agttgaacat acaaggcggt cttctaatat ttctcatatt tcgtttggag aaggttcttt 180
tatatcatct acaacttaca ataagcatag gggcccttgc ccagctgctt tattggaaac 240
taataaagca ccattttaa atacacgtca agtgaaggcg cataaatttt atgtgcctaa 300
agttgtcacg gaaaaatagg aagcctttaa aatatcattc agaatttatt tacttatcaa 360
tgtcttccat tactgtatat acttatatat atatatatat atatatatat atatatatat 420
atatatatat atatatatnn natanaggtn acaaatatnn cgcnnatnng agagngcgcg 480
cgcnnatatt gtntcntacn cnnatatntt gngntatana ganntntata tatntggcac 540
nttatatgc 549

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<210> 528

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 528

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tcctgtgatc ggtcaagtga ttttagatct gaacgattac gatttatctc aagcttcaac 180
ccattggctg gatctatgcc cagaatttaa gtcataaatg tggatcattg ctttcgaatt 240
tcaatcaaaa catgcgtatg ctattaaatt aaatgtgtaa ttctaccttt aatttttgct 300
cctacagttt aaatttacgt ttgttatttt taggtataaa tatacgcttt attttggtat 360
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caaatttggt atatagatgt atatactgta ctaatatitaa ttttttcaac ataaatttct 480
tttgcattgt ccttacattc tagatattca attatcttaa taagtcttaa tcttaaactt 540
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<210> 529

<211> 441

<212> DNA

<213> Ctenocephalides felis

<400> 529

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tcaaaagcac tcctgcaagt tccattctca cctgcaaaca gttgtccaaa ttgtggtgtc 180
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ctgggacttc tgtgctgctg ggaatgaagg agagatcctg cgtcaactgt ggagcagctt 300
ttaactagga tatagagaaa attatgattt aatgtctttg taactgtcat ttttattact 360
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agaaaaaaaa aaaaaaaaaa a 441

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<210> 530

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 530

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 aataagtaaa tttccaagtt ttcacacaaa ttattgagta agccgaagcc tctttaatgc 180
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<210> 531

<211> 550

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<213> Ctenocephalides felis

<400> 531

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 cagtgtcggc atgggcagac agtcgacaag aagttgttaa aatgggttaa tgggctgaac 180
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<210> 532

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 532

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<210> 533
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 <213> Ctenocephalides felis

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 aattgcatta gcaaccgtac gttcatttgg aaccgaagat cgagataccc cgtttccagt 240
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 aagagttgtc aacaatgtca ataatcctgt gcccaatgac cctgcaatta tgcagttatc 360
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<210> 534
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 <213> Ctenocephalides felis

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 tgtcagtatg gatgaagtag ctaaagatgc taaaaatttt attgaacgca ttcttggggg 180
 atgtgagcaa aacctcagca actaaacaat tagtcattgg ttcattatca ggatggacaa 240
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 taatggataa aattgagaga tttgttgata ggaaaattga caaagcagag gaattgctaa 480
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 gcaagaaat 549

<210> 535
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 <213> Ctenocephalides felis

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 tctaacatac attcagcaca agttaggagg agctctagac tttttacaaa taattactca 240

gttaaagaaa ataataaatc tccaaataga aataaatttg ccaccccaaa atctcctaga 300
aaaccaaacg aacgtttaac aaagactaat ttaggtaaaa caaattacga aataactgaa 360
aaaacagtag ataaagaaaa agtagaaact ataacgtctg atcaaaaagt tttgctgaat 420
aatagtataa actctgacaa acatcagcgc agcaacttta gttttgcaaa acaagtgtga 480
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antgtgtgt 549

<210> 536

<211> 409

<212> DNA

<213> Ctenocephalides felis

<400> 536

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taaaccgggt atacatggag aaaatgccca tcaacaacat aatatagcgt ccagaaaaaa 180
atatgttcca cgtgtcatca gttatgtttt tggctattaa ttttttctcg ttgatcacca 240
aaacagcggc aaatattaaa attataagac catgaccaat gtcgccgaac atgactccga 300
ataaaaatgg gaaggtgatg atggtgtata gtgcagggtt tgcttctcta tagctggcta 360
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<210> 537

<211> 166

<212> DNA

<213> Ctenocephalides felis

<400> 537

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ccgaattttc cctctcgctc ttcacccgag attttattaa gttcttgagg cattttggct 120
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<210> 538

<211> 135

<212> DNA

<213> Ctenocephalides felis

<400> 538

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tcggcgctgg tttggccgta ggattttccg gcttggcggc gggttttgcg attggaatcg 120
ttggtgatgc tggag 135

<210> 539

<211> 79

<212> DNA

0991936-112101

<213> Ctenocephalides felis

<400> 539

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<210> 540

<211> 140

<212> DNA

<213> Ctenocephalides felis

<400> 540

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tactgtatga aatcaaccaa ttgattgaan ggaaatgttt cctttgagct aatttcntat 120
ccaaacccca naacacttgt 140

<210> 541

<211> 462

<212> DNA

<213> Ctenocephalides felis

<400> 541

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agatccaaca ataccaacag cgataccgca gaataaattc acaagaccaa cagccaaacc 180
agctccaaaa agaacataac caccatcca atttgcttct ttatatcctg ctttttcaaa 240
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ataaatagca acagcttcac agaaaataac tgaaattaag ttttttggtt tgattctggg 360
cgctttcaca ccacctccta caatggatgt gcctgtggta tgaattccaa caagctgctc 420
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<210> 542

<211> 396

<212> DNA

<213> Ctenocephalides felis

<400> 542

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ttctataaaa cagttggtat gttacgtaac attattgctt tctatgatat ggcaaaatac 180
gcagttgaat ctactgcaca aagtgaanaac aagattacct ggaataccat tagagatgct 240
atgggcaata ttctatatca gttgtcctca atgaagttca aggaccagct caaggatggt 300
gaggcaaaga tcaagagtga ttttgatcaa ttacatgagg atttacagca agcattccgc 360
aacttgnag attagattat tgtgaatata atatgt 396

0991936-1101
TOTAL = 936T660

<210> 543
 <211> 283
 <212> DNA
 <213> Ctenocephalides felis

<400> 543
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 tctaaattgg acggttccag cttctcccaa ttctgaaact gaagtgtgag cagcttcagg 180
 ctgaataaac atctggcata aagccatctc ctcaattcga aacatagccc ccatgatgtg 240
 gcctattcaa caccgctcc ttgatacaaa ataagcgggt tgc 283

<210> 544
 <211> 346
 <212> DNA
 <213> Ctenocephalides felis

<400> 544
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 tatacatata taatggaata ttttttgtat cataattaaa ttgtaaatct catgatttac 120
 taagcgttga cattaacagt attagcagca gctccttttag tttcactggg ttggtccttc 180
 tcgagttgct tgccaaggta ttcccaatta tgaaccatta atttctggac tgccaacaaa 240
 gcttcataatc ttacatttgg ttctcatat gccataaatt gcataaccag ttgtttgcc 300
 ccaagctggt cgatgatatt tttgccacgt ggataatgcc tgacgt 346

<210> 545
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 545
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 aaagcttcag catatgagga catgtctgtt aagattacca acacgtgctt ttcacattgg 120
 taggccaaga attcagcagc tgtcaaagcc agacgtgggg taatgatacg ttcaatagtt 180
 ggatcattgg ccaagttcaa gaacaggcac acattctcca tggaaccatt ctctctgaaa 240
 tcttgtttga agaactctggc agtttccatg ttgacacca tagcggcgaa cacaatggca 300
 aagttatcct catggctcatc caaaactgat tttcttggga ttttaactaa acctgcttgc 360
 ctacagatct gggcagcaat ttcattgtgg ggcagaccag ctgcagagaa aataggaatc 420
 ttctgtccac gagcaatgga gttcatcaca tcaatagcag agataccagt ttggatattt 480
 cctcangata gatacgag 498

<210> 546
 <211> 393
 <212> DNA

<213> Ctenocephalides felis

<400> 546

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nggatcaana taogcaataa ctcataattc ttctcattga gacgtggggc attctctctc 120
cagaacttag cagatttgtg aacagggtgac cattccaatc tgccggactt gatttctgta 180
gcatattcat caaatgagct aaggtcttga atggaagctt gtaatttttc ggtcaaatat 240
tcaacatcag caacgatatc ctcatcatct gaacgtcttt gttccaggat ggataattgt 300
ttcaatacct tgctttgcac cattgcaatg caatgctcct tggccacctg ttgatcttcc 360
actttctcaa ttaaattcct ataaacagcc agt 393

<210> 547

<211> 649

<212> DNA

<213> Ctenocephalides felis

<400> 547

cgagtacaag gaatgttcca gcttatggag cccaaagtat tattgaaggt ccgcaaagct 60
gatttagatt tggtagaatc agttttaact gatgccatgg atcagtataa acaacagatg 120
gttaccaaag aagttgtcgc cactatcaat agggaagcat ttttgccagt agaatgctgc 180
ggtggagttg aattgagtg gactaatggc cgcattaagg tttcaaacac attggaatcc 240
cgtttgact tgattgctca acaattgatt ccagaaatcc gaactgcctt attcggaagc 300
aatgccaacc gtaaattcac agactaaata ttcatatcaa attacatgat taggatgcaa 360
agtgacctag attcgtatta gtaaaaagca tcaagatcaa aatgaatgca caatcagatt 420
cataatgagt gtttttgcac gatacacatt ttttcagaca atagttcata taattgatgc 480
ttccctttgc ttcatagtcc tatttcaaaa atgttaatag atgcacattc cgtagaagtt 540
atatagcatg ctataattga atgatgaata ttacatttga aaattttgaa tacttaattg 600
gnctaaatca taattttctg aaacatgcat tttattcaac acttttgc 649

<210> 548

<211> 360

<212> DNA

<213> Ctenocephalides felis

<400> 548

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cggtatcacc ctcagtgaat acttccgtga tatgggttac aacgtatcta tgatggctga 120
tttcacttct cggtgggctg aagctttgag agaaatttca ggctggttgg ctgaaatgcc 180
tgccgattcc gggtatccag cgtacttggg agctaggttg gcctctttct acgaacgtgc 240
tggtcgtgta aaatggttgg gtaatcccg aacgtgaaggc tcagtatcaa ttgtaggagc 300
tgtatcaccg cccggtggtg acttctcaga tcccgctcact tcagctacat tgggtattgt 360

<210> 549

<211> 357

<212> DNA

<213> Ctenocephalides felis

<400> 549

ggattcattc gatcagcttc atcatcatat acatatatat gttttttgng ngngatttaa 60
taattggctt aaattttaca tcttgnttgt tttaaacttt gttgncaacc atatcgacgt 120
tcagtttata gtagacatat ggatagtaat caagcttggc caaaacccan accaggaata 180
tcaacgttct cagaagcacc ggagctttgt agagcactgc tgtcaagtgt ccgtacaatt 240
gattgagcac atctcgtaat ctcttgatgc tcttcttaga tggttgaagg caacttcagt 300
gaatgcttct gtgcatggat ccatgttaag gcgctacgag ttttcgttga gtcaagt 357

<210> 550

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 550

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acccaaattc caattttgac tatgcccaac gatgatatta ctcaccctat tcttgatttg 120
actggttaca tcaactgaagg acagatctac gtagacagac aactgcacaa caggcaaatac 180
taccacctg taaacgtatt gncttccctg tcacgtttga tgaaatntgc cattggtgag 240
ggtttgacac gnagaganca ctctgatgtg tccaatcaat tgtatgcttg ctncgccntt 300
ggtaaggacg tgcaggctat gaaggctgac gtangagagg aagctttgac acctgatgac 360
ttgttgnact tggaattctt gcgaaatttg agaagaactt tatctcacan ggtanttatg 420
agaaccgcac agantttgaa tctttggaca ttngctggca antggtggga tcttcccnag 480
gagatgttga agagaatacc 500

<210> 551

<211> 116

<212> DNA

<213> Ctenocephalides felis

<400> 551

ccatgtcagt ggccaaagtt ggttgataac ctacagcggg tggaatacga cccaacagag 60
cagatacttc agaaccggct tgagtgaaac ggaaaatggt gtcaatgaaa agaagt 116

<210> 552

<211> 294

<212> DNA

<213> Ctenocephalides felis

<400> 552

caaaggctat caaaaaatgt cttttctaac aagtgtttac atatttgctt tgtatcgaat 60
actattttaa aaatatttat tatacatgca tcaatgatac atatttttaa ttacaatac 120
ttaatacttt tagtaaggct actatgattt gttgaataat ttaaataatt caaaatccat 180
tacaaataat aaatactgct aaacaattag caacatactg tatggataat acataaaatt 240

actcggagtt caaaaaaaaa aatnaaaaaa aaaaacaaaa aaataatcat gagt 294

<210> 553

<211> 436

<212> DNA

<213> Ctenocephalides felis

<400> 553

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ggtgntgncc atgggattga gccaaacaac atatactggc tcgattatgc tctatgtgat 120
attctgcgng ngggcactat tcacaattgc catcctagtt atgatggaag gcctttctgc 180
gtcttgacac cactgcgtct tcaactgggtg gagttcatga gtaagttcta ctctggtttg 240
ggttatttgn tccaaccctt ctgcttcaaa actatttttg acgcgngnga taaggngaca 300
gaataatcaa tttatctatt atttaaataa attaaaaaac aaattagtta taaagaaggt 360
ataaaaaagn aaaatattgg ntaaaaattg nttttaaaag nctgnaagng atttggaata 420
acacttaatt tgtagg 436

<210> 554

<211> 223

<212> DNA

<213> Ctenocephalides felis

<400> 554

aataagtgtt gttaaaaactt ctttgtattg ttccttatta cgtgtaactt ctcccaacct 60
tttgcgggct tcatccaaaa cattcctcac atgatcttca cgaactttca ataccttcaa 120
tcgagcttgg ttgagcatgt tggatgattg aattttcttt tgcaattcaa cttgtttttc 180
cttcttctca tagtattcca taatctttag tcgctgttgc tgt 223

<210> 555

<211> 418

<212> DNA

<213> Ctenocephalides felis

<400> 555

aattcggtaa tactaggaat gtanaacana aatataatag aacaataatt cgatttcaac 60
aaagatattg tattttaatt ttaatttata ttgatcacia attaataact cgttacattg 120
taataatact aaacaatcta tttacaatta aaaacactcc tttcgcaaac ttttaattctc 180
cttcttgatg cgtgtggatg tcattctgta aataatggag tccctgccag ggtccattgt 240
ggagatcgag atacagatag caagtaacga gaagaaaaag gctactccga accataaaat 300
gatgttaaaa accaccgggt aggagtgcgt gtattcttta gctaggttga aatcgggttc 360
ttttggagca tcactgcgtt gccttgctta cgtgttaaga cgtcattaga gggttagt 418

<210> 556

<211> 289

<212> DNA

<213> Ctenocephalides felis

<400> 556

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cgtagccag accagtaact gagaaattac ccgcaaacca cccattgttn actgggcaac 60
gtgtnttgga ttctctgttc ccatgtgttc agggaggaac cactgccatc cctggagctt 120
tcggttggtg aaaaactgtt atttcacaag ctttgccaaa tactctaact ctgatgtcat 180
catttatgtt ggttgcggtg aaagaggtaa tgaaatgtct gaagtacttc gtgatttccc 240
tgaattgagt gttgaaatcg acggcgtaac tgaatctatt atgaagcgt 289
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<210> 557

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 557

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caaatccttt gacattagat aaacgtagta ctatttaagc acaaaaaggt ataataaat 60
aaaatggcta gccagactca gggaattcaa caacttcttg ccgctgagaa aagggtgct 120
gaaaaagtct ccgaggccag gaaacgcaaa gcacgcagac taaagcaagc taaggaagaa 180
gctcaagatg aaattgagaa atatcgtcag gaacgtgaga agcaattcaa agaatttgaa 240
gcaaagcata tgggctcacg ggaaggagtt gcggttagaa ttgatgctga cactcggtgc 300
aaaatcgatc agatgaacaa agctgtatct gttcaaaagg atcccgtgat gtatgaaatt 360
ctgaagttgg tctatgacat caaaccagaa ttacacaaaa attatcgcaa agaataattt 420
atatttattca gagctccagt gaaaaataa tatatttaat aaagattggt tatatccaca 480
tttttgctta tgtgaaaaaa tcttaataga tcaatctgat tttagaaatc tagaatttta 540
antagggtc 549
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<210> 558

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 558

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aaagaaccac atcaaaatga cagagtattg gctgatattc gcaccagggtg acaagacctg 120
ccagcagaca tgggagacga tgaacaatgt caccagcaaa caaaattcat tatctgtcaa 180
ctacaaaatt catataccag accttaaggt cggtagatta gatcagctcg taggtctgtc 240
tgatgatcta ggcaagctcg atgtattcgt tgagcagatc actcgtaagg tagcaacata 300
tcttggtgag gttcttgagg accaacgtga taaacttcac gagaatttaa tggcaaacaa 360
cagcgatctg catcttacat aactcgcttc cagtgggaca tggcaagtac ccaatcaagc 420
aatctcttcg taacatctca gatatcatca gcaagcaagt aggacagatc gatgccgctt 480
gaaaaccaa tctcagcgt cacaattgaa aggagtttgc agacttggag aagaacaaac 540
tggaanttgt 550
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<210> 559

<211> 371
 <212> DNA
 <213> Ctenocephalides felis

<400> 559
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 gaatgagatt ttttgggtaa caattttcaa ttagagttat ttttactagg gataaatttt 120
 gtggatggaa agtttgggtga gacaacaaaa tagcatgggc tgtaagggaa ataatagtgt 180
 ttatcttata gtttctggga cagtatgagg aatagtgtaa gtatctaccc gaccatgtag 240
 tttttctata ccaatttggt cgaataaagt tattagtgtt gttaaaggat acatccaaga 300
 aattaagcct gttgttattt tgtagttcat gtgtgaaaat tatattattg ttaaaattat 360
 tgaagagatc t 371

<210> 560
 <211> 228
 <212> DNA
 <213> Ctenocephalides felis

<400> 560
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 catcagntgg ttcattgaaa gggttgtttg ggtgcttgc ggcttcgtcg aagggttgg 120
 tgcttgtttc gggttctggg tcgtcgaaag gatttgctgg aacgtcttgc ttggcgtaac 180
 tgggtgtccc gtagacttgt ttcgaagatt caccaattgt tttgacgt 228

<210> 561
 <211> 269
 <212> DNA
 <213> Ctenocephalides felis

<400> 561
 agatctacta atgcccgtt taccactgtc acagcaattc cgcaaaccag caaccacana 60
 tataantatg atgctattgt taaatgntca ataaatgcac aaattattcc acaaattccg 120
 catgagacca tcacgaatac aagaattgga agctttccca cagagttaat aatagcacct 180
 attatgggaa atccaatcgc atatccagct tccaacatta aagaatgcat aaatgcctgt 240
 tcttccattg tgtctttaca ctcggtcgt 269

<210> 562
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 562
 aaaaatccaa cggatgtttc gtcatacaga cctatcagtt tgcttcctat aatttccaaa 60
 atactggaaa anataatata caaaaaaatt aatcatgatt taccgacaga catctggatg 120
 ccgtcacatc agttcgggtt caggcataag cactcaacga ctcaacagat ccataggatt 180

gttgaataa ttataaaac atttgaacaa aaggaatatt gcagtggcat tttcttggac 240
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 tttccagtta aatacttcaa gttattaaaa tcttatttag aaaacagatc tttccagatt 360
 agagtgaacg ctgaactgtc agatttctgt aaaatagggc caggtgtccc gcagggcagc 420
 atcctgggac cattattata tgnattattt accttagata tccaatacct tctaactcta 480
 ttatagctac attgcagacg 500

<210> 563

<211> 270

<212> DNA

<213> Ctenocephalides felis

<400> 563

anatctacta atgccgcgtt taccactgtc acagcaattc cgcaaaccag caaccacggg 60
 atataaatat gatgctattg ttaaatgttc aataaatgca caaattattc cacaaatccc 120
 gcatgagacc atcacgaata caagaattgg aagctttccc acagagttaa taatagcacc 180
 tattatggga aatccaatcg catatccagc ttccaacatt aaagaatgca taaatgcctg 240
 ttcttcatt gtgtctttac actcggtcgt 270

<210> 564

<211> 210

<212> DNA

<213> Ctenocephalides felis

<400> 564

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 acatcggaga atgggttagaa ttcaaaaaat aatcatgcaa cacggnctca ttattataac 120
 attcacataa aaaatatatta aaatatgtaa actagcttgc atgtttattg taagccagtc 180
 tataatctat tattgnttgc actttactta 210

<210> 565

<211> 425

<212> DNA

<213> Ctenocephalides felis

<400> 565

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 tcgataaggt ttggcaccga ggacttttat ataaaaataaa agcatatctt ccttcaagga 120
 tttttcaagt aaaagtaaat caagtaacat ctgatttcca caaaataatg tcaggagttc 180
 cacaaggtag tatttttggga cctttcttat atgttttata cacaaaggac ctcccattac 240
 ttgaaaatct gacacttgct acattcgtc acgatattgc cataactaagt agtaatcaca 300
 gtgctgatca agcttccga caaacgcaag aacatatcaa taaactacaa atgtggctta 360
 ctaaattgaa gatttgcata aatgaaacca aatcagttca tatcacattt accctgagag 420
 agggc 425

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<210> 566
 <211> 328
 <212> DNA
 <213> Ctenocephalides felis

<400> 566
 gaaggatant ttatgtaaat taatggttga tattantttg gcnttttcaa gaaataatta 60
 tgtggnggca ctcttttgcg atattaaagg ggcataatgat aatgtcgttc caagtataat 120
 gttccaagaa ttaattaaaa taggattacc attccgattg gtgtcagcct taacatttaa 180
 tatatatgaa aggaatataa tagtgaagaa agataacaaa atanttggtg aaagagtagt 240
 gaataaagga ctaccacaag gaggtatact tagcccatta ttgtatgcta tatatgtaag 300
 agatatagat aatatttggg taagaggt 328

<210> 567
 <211> 284
 <212> DNA
 <213> Ctenocephalides felis

<400> 567
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 aacaaacaat ttcaatcgag aaccttcaat agttacaaaa tgggctatac ctgtatcggtt 120
 cgcaggtttg gcttttgttg gaacttgtgt ggctaatatg ctgactaaaa aaccaatgat 180
 gtcaggcatt cagaaacaca tccttctgac atctagtttt ggtggagttg gttatatcgc 240
 agataaatat cgtaatgaat attatgcaga aagagatgct atgt 284

<210> 568
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 568
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 agcagctaac acaacgtaat tgctttgaaa aaagcatttc naaattttca acaaaatatt 120
 tcaaattaaa aaagtcaatt tctctcactt ttcaaanttt tgnaaagctt tttnnnaaat 180
 tanctangg gncnnaagt nntnacaat tngnccgnaa agcnagaagn cctgcacccn 240
 caanggcact gncnccgta aaaanngggg ggctcncana ataattncnn tnnccccca 300
 gcntngnca ccnacgnnnc nngttnnnn ntanntntcn ctcennnac nnnntntcgt 360
 ncnnacnac cnntannnc cnentcncnn nccccntca cennntnncg cncgaccatn 420
 nctntnnnaa ngcccnatnn cccctntagn nngccgtntc tnacttgntn nncnnenttt 480
 cnntganecgt ntctcggnan 500

<210> 569
 <211> 358
 <212> DNA

<213> Ctenocephalides felis

<400> 569

acaattgtgt agtgcagtgg ctaactgtat tagatgatat agtcaattta aaattcagga 60
actaaactta aattagtatt acgttgctgt cttcacatta tgttctatgc tcatcagttt 120
taagttaaag ttggccacca ctcatatata gcaaatagat aatgactatt gcgaaagaag 180
tctagactat aaaaatacta atttatttat ttatgtagta tatttttagt attgtgagtg 240
aaagacgttt aaaatacatc taattcaaaa tagtcaaaat gattctaacc acattttgta 300
tgttttaagt atgcaagcat gtttgcttga gatttgttta agaacctaat tgtttagt 358

<210> 570

<211> 368

<212> DNA

<213> Ctenocephalides felis

<400> 570

acgtaatagt ctacttctac taggtgttca ctcgtaaaaa tcacgaattg aactggcgga 60
ttaggaattg ccaaataattt tatattttac tcgtaacaaa tattttttta attgcaataa 120
aaaaaatctt gtaatttagg ctgtaaaact tcattgnnta aatatagaat atgtaatatg 180
atnagttgan gttggnatat ctataaagtt ttttttngtt tnatgttnnc aannatcaat 240
caangttngc ntttttctga ngatatttgaa nattttgata caantattaa aatattttga 300
tttttagttt ttttttgcac atatngctga tcaaaatant ataatttttt aanacantat 360
gctgggttg 368

<210> 571

<211> 255

<212> DNA

<213> Ctenocephalides felis

<400> 571

acaatgtttt acatcattaa cattaatttg cattcatcac aatgaacaaa actgatcttt 60
cgttcaatca ataacgtaat ctagaacaat tgtaatgaat tacttttatt attataagaa 120
tccaaacatg tattattcct taaccatttt ctaaagatct atggcatatt taaacatatt 180
aatatatttt gatactattt attttcatta aaataagcaa aattggcata ttaaaacaat 240
ttaaatagtt ttagt 255

<210> 572

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 572

accactgtat ttcttgaagt caaaattaat atactcagaa atatcataaa aactgttggc 60
ttatttagta aattaatcaa aacgttggtg aatttatgat tgctttgttg tcgtatttgt 120
aaaggtaata aattgaacag ttgaatacc aaaccatcaa ttgaattaaa agtagtatta 180

agcttaaaaag tcgatcctct gatagttcta ttccttggtga catagtagag actagacatg 240
 gaagataaat taaaatactg gggattatct tttataaaga gaagtgtat aagtaggaat 300
 atgttaggaa cggtaagaat attatacttc tgaaaaatat ttctacaact tgtagatagag 360
 ttaagagaaa acatgattct tagtgctctt ttctgaagct tgaaaacata taatgaaaat 420
 atcttctata atatgtatga aaatcaaact atattttgnt atattcatca tcaaactttc 480
 tcatattttg cttctttttc 500

<210> 573

<211> 341

<212> DNA

<213> Ctenocephalides felis

<400> 573

actgtttaat tgtatatgta acttttactc gttactctta tcacagagta atcaaattga 60
 caagatgacg cgttcttaat taataaatga tttggacttc tattatttat tataagttgg 120
 taaatccttg aaggcaacac agcaatttga tgatattggc ctccgcctat ttttctcaa 180
 atgaataaca caaaaatcct atcgataatt aactaacaat agcacggact tataatacta 240
 aaacgaatta tgatttagtt cacattatcc ttacggataa atgaagtgtt tgttacaact 300
 tacaataaat gttgtaaaga gttgataaag ttacaaattg t 341

<210> 574

<211> 359

<212> DNA

<213> Ctenocephalides felis

<400> 574

acatatatcat atttatgatc cttctattag tagattatat aattaggttt ttgtctttga 60
 actgattatc tgcaataaac gtaaataga aaacgcacaa gagaaaatgt ttatatgatt 120
 ccgatattta ctactatctt atttttcaca aagcatagaa ttagttttta tatgatgctt 180
 gatcaataat ggtgtttgaa attttaaaat taatatacga agctatttaa tatcacgcaa 240
 agaaactttg atgtttataa gacacctatg tttacacata catacacata tattgtaaat 300
 attaatactt ctttataaaa tccatgcata tttgctttgt catattctta ttattctgt 359

<210> 575

<211> 353

<212> DNA

<213> Ctenocephalides felis

<400> 575

acataatata taagttcgtt ttatattaat tgaaatatat aaaatattcg aatttaaaat 60
 taatgaataa ttaaaatgtt cgtttaaatt gatttaagcg taatggattt agtggatttg 120
 tttgattttg atgctctact ctgtagtcgc ggctgggttcg gtcttttcgg tcttttcgat 180
 cttattggtc ttatctgtat tatcggtctt atccaccacc gattcgagct caagggtttt 240
 gagttgaagt ggcctttttt ggatgtaata agataataaa tttacatcat tacggatttt 300
 tccactttct gggtagtaag atttctctt gttgtaggcc ttgtcgctg cgt 353

<210> 576
 <211> 399
 <212> DNA
 <213> Ctenocephalides felis

<400> 576
 acacttgacc caatactgat gtcgtcaaat attcntattg taaagtcata tataaatcgt 60
 caaacagttt ttgagttggt tcaagtattt tgttttgata gtctagttca aaagatttta 120
 aacacatcgc ccagcaaaat atattgcgtt ttcttcgtaa aaatcaaatt tcgtacactt 180
 gactcaatac cacacacaaa tcattttatt tttctgtctt cgaaaacaga tattaatagg 240
 caaatgttat gtttcagtaa tctctagtat tttttttcat tgacatgttt atatacagat 300
 tttaaatata ttgtgttttt tttacaatcc caacgtctct gttatgtctc tcagcactcg 360
 acaatttttg aacctatcga cggggtgtcg tagtgccgt 399

<210> 577
 <211> 1000
 <212> DNA
 <213> Ctenocephalides felis

<400> 577
 accgtaatta aatattggaa tgattttaat tgatttcaaa tagattatta tgaatattgt 60
 aactttcatt attcatattt agtagatgaa atgtaagtag cttataaatt gaacgacggt 120
 ctttatacat gtttatatga aaagtaaata aacaaacctc atagaaattt gataaactga 180
 attgcaaagc tcaaattatt tatttcaagt atataagcga gctttagaat tttcgataga 240
 attaaaatta aaaaatctga tgattttcaa tattaaaaan aaagaaaatt aaaaagaaag 300
 tggaattttg agatgaaaaa aacaatttat ttctcaaaaa actaatcgat tctaagcatt 360
 gtcaatgcaa gcaatatgtn tttttaaatc attggaattt agatgctgcg ttttcacaaa 420
 aactagattt tagcactttt tgctcttcat ctaccaaacg ggtggacctg cctatgcaaa 480
 aatctaacia aaacgtctcg accgtaatta aatattggaa tgattttaat tgatttcaaa 540
 tagattatta tgaatattgt aactttcatt attcatattt agtagatgaa atgtaagtag 600
 cttataaatt gaacgacggt ctttatacat gtttatatga aaagtaaata aacaaacctc 660
 atagaaattt gataaactga attgcaaagc tcaaattatt tatttcaagt atataagcga 720
 gctttagaat tttcgataga attaaaatta aaaaatctga tgattttcaa tattaaaaan 780
 aaagaaaatt aaaaagaaag tggaattttg agatgaaaaa aacaatttat ttctcaaaaa 840
 actaatcgat tctaagcatt gtcaatgcaa gcaatatgtn tttttaaatc attggaattt 900
 agatgctgcg ttttcacaaa aactagattt tagcactttt tgctcttcat ctaccaaacg 960
 ggtggacctg cctatgcaaa aatctaacia aaacgtctcg 1000

<210> 578
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 578

acattgagca ttcttgactt ttcgcattta aacagctgta ncttttaaat ttaattatta 60
 ccaaaaaata ntattaacac ttttggttaag cgataaaca caaatccatt aatccgtata 120
 ggaatttatt gagacttttc attgaggagc tacatccgtt taactaaaaa tttgctcaac 180
 tagctccgcc ctaccctact taactttata tntatccctt tggaatatat tgacaagacg 240
 cttttatntg ttattattta tgnnttaanc tttataacta aatactatga aataattcca 300
 tatacattca aatcatttta tttagtttca gtaattatat ttgcatataa tataangatg 360
 tattntttta cttattttana aattntaang taaatttttag tattnaataa atantgggag 420
 gaaatctagg aactaggatg aattttgcaa ctcataaata tgataaacat ttatgaattn 480
 tgcttatatt ctaatttgaa 500

<210> 579

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 579

acaccgtaaa gctttcgctt ttcggtccga gatacgagac ctcgtttcaa aattgaaata 60
 tgaatatttc attgtgtgtg agattgaaaa atctgctttc gctgatcttt cattttctta 120
 aaacaacgca atgaagcgaa tgttcaaatt cgcacaattt gaataaaatg tgcagagtat 180
 atagaatact aacgcaagcg tttactacaa tcgactttga aacactagac tttcatctag 240
 cgcccaaaga attgattgag ctatgcgttt aaagtataat attcaaaaag aacgccgttt 300
 tcacaacgaa cttcgtcatt cgctcaggca tctggcgata ccgagcagat atacatggca 360
 gtgctctcac acaatgcata agagcgctaa gcggttgtaa accgcgtcac gctgcttttg 420
 cacactgccc aatattttgc gactagctcc ggtcaaactg taatgaaacg aatgatccat 480
 cgttgcgaga cgctttaaga 500

<210> 580

<211> 277

<212> DNA

<213> Ctenocephalides felis

<400> 580

acgagagcga catgttcggg aaccggtgcg ttatacctgc tcgagtcctt tggttttgag 60
 acgtcccatt gcatattcat aggatattca taggatatcg cgatattagg agattgtgag 120
 gacaagtggg acattccctg gcatgtcttg tgctgtctgg gaaggctgtc aaatgttatt 180
 ttttcacaga ttgaatcaat aaccgaaact atgacacacc aaaatactaa ccgaaagcct 240
 gcaaataatt ttatcgccaa ttcagataaa tatttgt 277

<210> 581

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 581

acacaaaatt agaaaaattt aattaaggat ctgcgataaa aaaaaaaca tttttgacac 60

atgaaacaat tttctaaatc atttttctat ttcattgttca agagaacaga cggacagacg 120
 aacagataga taaacaggtg gacacttaac acgttaatcg ccatgataat atcagaaaaa 180
 aatttcatg cactatggta actttattag ttgaaaatgt atcgaaaact ccatgtagca 240
 aagaaaaaaa gatattttga aaaattcctg cacattattt ttttatgcca catatatatg 300
 actgatatat atgtcagaca taatttataa actagtcggn ttggtattta gccttgaggc 360
 aagttacatg aacttcccgga tatgtttaaa taatcaactt aatcaataaa aaataaatta 420
 atttatgagt cattaaaagt attccgagtg gatttattat acataattga aaacgaacga 480
 acactttgac tcnagatt 500

<210> 582

<211> 469

<212> DNA

<213> Ctenocephalides felis

<400> 582

acaacgggga tttgattcca accacaacac caacgcaaac atttttgttc taggcatttt 60
 tatacaaatt gaaatagcac aatttaaacc aaaacgaaac agaacaagta aaccgcgcaa 120
 attatcaaatt cactctaccg acgccgacgt cattttgcta ttctcgggat tttagtgtgt 180
 cacaaaaacc agatgttgat aacaggttga ctgccgaccg tagtgtttgt ccattagtgt 240
 ggaaatttat aaatatacat atgattcaga atatgagtaa cacttggtta tatttataac 300
 gaagtttatt cacagaaaaa tatagaattg aatttagaaa ataacttttg tatacgaagt 360
 gtaagttacg gtggttcaaa gtagagagag ttttgccggt ttctcctttc caaacccggc 420
 gtcctggggt gccagagcaa tcatgtttgt tcttcgaag cctcgccgt 469

<210> 583

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 583

actgactgna tatccattgc gcatttngta taatngaatt ttnnnagcaa taaactttga 60
 nggattgagg ggtatntcna atttggncat tgattcccat tactatgtga tcagtcattt 120
 cgtaaattnt attttcctna ttnttcataa ccactatact gtgcgcgtnt gtnatgancg 180
 nggcnatnat aacgaatttg ataaaacgna tncctaataa anatttgatt ttgtacacct 240
 aggtcngan cangcnaaga cnaataatgc agatgnncat cacagnnggg ganngannaa 300
 angtgatgt aganggggtca tntttggcct atagngagtc gtattacaat tcantggcng 360
 tnagtttaac aacgtcgtga ctgggaaaac cntggngata cccaactgaa ngacttgnag 420
 cacatncacc tttnggnag gtngggtaat ntncgaagaa ggnntgnacn gatnggcctn 480
 ccaacagttg ngcannctga 500

<210> 584

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 584

actgccttta atagaaacca tagaaagttg agtaatggaa aaatatatgg tggtcctatt 60
tttcgaatag atgaatgctt ctcaagtatat acaataaaaag tctcttgggc agtagaagca 120
ttatttcgac aaagatattg taaaactgct tgtgttatga acatatcaat ttctccatta 180
aatccctttct ctgtatgcaa ttcaactaac atagaagcaa aaccggaccc atccatggag 240
aacataaaat gatatcttgc ttgagcataa tttttttctt gccaatatgc ttgtgccaat 300
ttctggaatt atgtttatat ttaaatatgc aacaaacttt tcaaaccctc ctctgtccta 360
tatctaatta ttagcaatcc ttccataaac ctacatactc actttatgca attcaggatg 420
tccaagttta ttatcaccat ccttgaccat gttaaggaat ttgataaaaa tgtctctctc 480
tctggcacat agggcccaat 500

<210> 585

<211> 445

<212> DNA

<213> Ctenocephalides felis

<400> 585

acatatttac gcgcaacata gcggcactac gcgcaatatn caagccgnca gattaaaact 60
gtgattaaac tcataataaa actcgatggc acgatcattt tatgaaacat taaatatcag 120
ttattaaatg aacacttaaa cgggaatttc ataatgtaga taatatgaca aaatcgattt 180
tattttgctt ctgttttaaa tgaatatgcc cggtaattga caggttttta ctgataaacg 240
gaatagctnc tgatcattaa tagccaaaat tgtgctaccg taatattatg attcagcttc 300
taatggatna ataataaatt atttcgaatg gtttcagtgg gcggcgtgta aataatatag 360
ttcatcactt gcaatgttag atttatgaga aaatgcattg ctttgctcgt taattaaaga 420
tttcatttaa atttatatat gtggg 445

<210> 586

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 586

acaagaaaag agggcgatat agctcaatgt gttaaaccgc ccatcgaggg tctccgacca 60
atattcctcg aaggagacaa agctcgaaat ataccatcat tggaaccctt cgagggtgga 120
gatttgctgg tgggcgacta cggtcgtagc aacggaggtc taaggatttc tgctacggaa 180
atcatggcta agggcgctc caatttccgt attgataaaa taagcggaga tcttgataaa 240
ctagaatttt actttgaagt attactacct cgtcttgaga ctacaggaaa atatgctgta 300
natggaaatg tattattatt acctattaag ggtngtggac catttactgg aaattncact 360
gatagtgtag gaaaagcttg taatgcangg agaaaattgg tcgaaaagat ggccaaaaca 420
tattaaattc acngatttaa atatcangat caaagtggga aaaggctcgt tgcttttgaa 480
gaattatcng tggtgataaa 500

<210> 587

<211> 193

<212> DNA

<213> Ctenocephalides felis

<400> 587

actgaagttt gttgngcgta aagatcactg atgtgggana agaagncgac aaaacanagn 60
ggtaaacttt cgacaaggaa tacattacca acaaaattat aaaagtcacg aataaattaa 120
tatgnaaata ttatgataag gattatatac ttttganttc tttttgtaaa taaagattac 180
ggatttaaat tct 193

<210> 588

<211> 399

<212> DNA

<213> Ctenocephalides felis

<400> 588

accattttat atgagagacg gtatcctagc tttgccatat cattgggtcta ttttaggaca 60
gaactgggtcc ctatatatgg caatatccac caacattttt atgcaatâtc taaacaaâcaa 120
tatactgtat ttttaccatt tatttaccaa cgagcaaagt tctctcgaat ctgatctcct 180
cgactagcga caactaagtt attagtctta actgaataat aacacgttgc ctgatatgat 240
aatattataa atatatacta gctcccagtt aagcgcttat atctgtcgcg ttacaacact 300
ttacatatta tgcaaatcag gttcttcttt ctattgaagt tccagttgcc tgtaataagt 360
gcatccctat aatttcgatt gtctcaaaga tctcactgt 399

<210> 589

<211> 238

<212> DNA

<213> Ctenocephalides felis

<400> 589

aaacaattcc gagattaacg gggctcgacc cggcgaaatn ggtgcttgcg tatcgagcgc 60
aataaaaaaca ttatataaca caaacaatgc agattattcg gttaacgaaa ttataagtga 120
aaaaaagtca ttaggaaaca caaaaattaa acataaaatc aaacctagca ttagcaaaaa 180
tgccgaaaaa aatattaaaa aaaatactga cattattcca gaaatgttaa aatctggt 238

<210> 590

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 590

actcggtccg anacgctana tgogaagagc gaacgaaatt tcttactatg agcggttgca 60
angctagttg natatttatt ataaaaactat aataaaatta taantcnatc ctttaaaaaat 120
attttngata cgtaaataccg tatatattac ataaatatat ggtatnttat naaagacgan 180
atgttttacg tnancatttn tgggtaacaa actattantt ttaatactat nttaccattt 240
atatatttng ctatcttagt atttattgcg tttngatant tcatatnant ntaatttnca 300
aatacaatgt gaaaaataag ctattacatt cttacangca attgaacgta gcttatanna 360

tcatatcatn atttatgtaa cnnactatta tgttgnact aatttancac catanataat 420
 annnnnngna taatgttnaa nacantcgaa ttgtcnangc nanantctag attgnatata 480
 agtatgattn tntgtgatat 500

<210> 591

<211> 427

<212> DNA

<213> Ctenocephalides felis

<400> 591

acatatcggc ggtttcttgc attctatcat aanttgcagc canttcnnac taattagcta 60
 ccaatnaagn ttaatngnaa tatnctcgtc catcgaacgc tntttaataa tctngaagac 120
 aacgcgtgca cggnncttat taaatcgtct ataacgataa tnnattttta tatatacatn 180
 catatatgta tactgtatat atncatatac agnaaaaccc cgatnagacg atctttnaan 240
 aggctggacn aaaaacgcat cttacggcag aaaatantat taaaattaca ttaattgnta 300
 aaacaatgaa aatattttca tttgcnagtt ttagtttatc anccattcac taaantagct 360
 gtaagnggaa ttctgcctta aggcacnatg ncttaattgc cttaggcaa atngctggaa 420
 cttttng 427

<210> 592

<211> 307

<212> DNA

<213> Ctenocephalides felis

<400> 592

antcgggtatt gccanctgnc cnngnggttn gatngacgnt gnntnctatg tgcgccggca 60
 ntncncgatt catngctaca gaaacggatc gttaaatttt ttgcanacta ttgaagngca 120
 tgttttgnt ctgatatnta cnatcanatt acantnnncg gatgcggtat anttncangn 180
 nncgatncga ngaaanctan ntgtcgaatg gcgntatgaa taaggcataa cancattcta 240
 ggtattagat aattaccaat aacttatccg ctagactaat atctaataa aatatatncg 300
 ttttcgt 307

<210> 593

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 593

ccanagnata ttatattggt aattncctat ggtacaaaca naanttaact aggtataaga 60
 taaattntca tttcaagaca tctgttactt taagttgatt agcaagaatc tcaaattggt 120
 agctgttaat ttaaaaaaat ataaaagcgg cttttactaa aaatgtaaat gtgaaaaatat 180
 tttcaaaaat atnttttgaa tacattatgc ttaaaatcgg attaggattt tcagaaaaat 240
 attaactgac aactggaaac ttannntntt tatnntttca ntatntatag cagnatannt 300
 annnnatntn cattctnnnc naatnntgnt tntntcntn tnnnnntnn atttntntnc 360
 cannctntnn gtcccnnnna ttntgccnnn ntnnntntn tntntnnnc acntnnnnnt 420

ncnnntntnt tcntttnnnc nnantttctnn ncatnttcct ttcnctnnc ntntnctnnc 480
tacnaactnt ntntttnnna 500

<210> 594

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 594

gnnnngnntn ntntnttttg aancacngaa gctcttngtn agctccaatt cggtttgngg 60
aaaaccctcc aggtacggaa cccatgggaa tgtaaacaaa atttatactt attgttaaaa 120
tctctctaaa atatctgata atttgatgtg catatgtcta atgatcattt ttgaccgcca 180
aatggcacat ttttttactt tttcctccat atctccaaag tcgttgagacc tttccaaaat 240
tttgaacagt tcttcattta gtcaatacaa ataaaatgtt ttttaaatta ttcaaatcgg 300
acgtccggtt ctcttaaaaa ctgagttacc gttttcggca ctttttgccc cgtatcttcg 360
gaacggctag acctaccttt gccaaaaact aatcagcacg tcttcttata aatatgaatc 420
gaatgttttt taaattattc aaatcggttg attcgtgttc ccgaaatcgt cgacgaaaat 480
ttgnatccgn acatacatc 500

<210> 595

<211> 204

<212> DNA

<213> Ctenocephalides felis

<400> 595

accatgtaaa tcgcataatt agaccaaaac acgtatccaa caaatctttc aaaataacta 60
aaaatttcga atcgataat aggggttcaga taatatcgca tcgttaaata tcgcccga 120
aatctaccaa cggtttgata tattcaagcg atcgtgtggg cggcatgtct ggtgggat 180
ttactttcac gtctcgagac gggt 204

<210> 596

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 596

actttgtttt tcttttaatt gatgcttgct catagaataa tgtaaatcc gggcaatctg 60
tagnggaaac caggaaatat aatccagcta aaacttgacc tttggtatca cgtgccagta 120
atgaacggaa gttgtataact aaattacgcc ttactgtcac atccactgca gtataataag 180
gtttatgcac atatactaga gataccacta gattttagt tgttcctcct tctttaatag 240
ttctgtgttg tcgttcagc cattcaacat aatgagaaga ttgagtgcata taagcatagc 300
aatattcgcg tttgcttcca cctggccctt catcacattg tgtaaaccaa cccgtatgtg 360
gatatttttc atcagccatt actgtcacta ctcttgagac gtgatatcct ggatcacaaa 420
ggactacacc ttttcttcca tttatgcaaa tacgaatagc accataacgt gttctttttc 480
taagcgccgc tggagccctg 500

<210> 597
 <211> 428
 <212> DNA
 <213> Ctenocephalides felis

<400> 597
 actgacttct tgtatttcac caccgtatac ttcttcctgc aaagctctaa aggtctcact 60
 cttggcggga tcgtaaacia cagtcggttt atatggtagg cttgttgat gacgaatcgc 120
 ttcggcgacg ttggcatcgg aatagaggcc aattggagaa ttgaattggt tatgcacaac 180
 cttgtttgct atgctatcac cagccactct gtgtaatact gaatcggcaa ccttttgctt 240
 cattaaaact tcatgattta atgttgactg aacgggagcc ctcatggccg gattcgggtg 300
 gtggcgacga tagcaatcat tagcatttga gtcgcgcttc acctttgcac ctggttagcac 360
 caacgggggc gttctgtatg gccaaagtgt tgcagaatca tccattttat ttccgtgatc 420
 cgtggtgt 428

<210> 598
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 598
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 cgccaaaaaa atatcataac tcatcaagtt gtgaaactaa agattttcca ttattacata 120
 ttacatacta tacatcataa tactgaacga agattattaa tcgaacgctt tatggagtct 180
 gatataatttc tgtaattctag acgtataaga atctttccgc ttatcttgac ttatttattg 240
 tttgttaattg attatacgcg gcacaattga ttttttatca cactttccaa taacaaattt 300
 ttatggtttta tgtgattttg tataaaatgc tgctaattat aaaattattc gactgttatt 360
 acgtgttttg ttggactaaa ttctaagaaa attattaata tttattttaga tatatttgtt 420
 tcgaattttt atttctaata taatgttgca ttctatttgn tacatttatt taaataaata 480
 atctgctttg naaaaaaaaaa 500

<210> 599
 <211> 194
 <212> DNA
 <213> Ctenocephalides felis

<400> 599
 cctgttggtt agacatcang taaacactaa atttntnaca accganttn agncantaat 60
 cattaatgtg cacnnaaaac taatatttag atgggaagga ttggatttta tcttaaaaaac 120
 taaagaaatg tgtcaaaacg tgcgcgttcc tcctcggcga acacgctagc cgaacacagt 180
 ctcgtcggaa ctgg 194

<210> 600

<211> 383
 <212> DNA
 <213> Ctenocephalides felis

<400> 600
 actcaaaaaa taaataataa taaaatctgt aataagcttt taactgtatc tcattcggaa 60
 taatacagaa aaagaaatgt tctttgctga ttattccact tttttcacaa ttgtagatta 120
 tcataatttta tctataattt atataatttt tttaatacat ttagttttat atagttttaca 180
 ttataattcct ttccataatt tttaatatct catgtaatat atgtaggaat attttgtaca 240
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 gttaaaaaaa tcacttttta atatcagaag ttatagctaa aataatagca tttattatta 180
 ttaaaatatt aactaaattc gtcccaaaat attaaacaaa cacaaaaaat cacaatgtag 240
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 attgcctcat caaaaatcaa cattaaatgt tgtatttccg atgatttgaa atcaattgca 420
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 atggattcga ttcacaagtt acaaaaactgt acccactttg gagccccctaa atttaccacc 180
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 aaactgttg ctcataaact atagcgggtc aggtcgaatt tacatcaaca tgactgatta 420
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 attattttga ttcgataaaa ataattcttg ggaaactggt 220

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 ataactgtta aacgcaatat ccaaactaat catgcatagc atcgttttgt aggttatgtc 180
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<210> 607

<211> 500

<212> DNA

<213> Ctenocephalides felis

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cataaacagt tcttatcatt gacgtgcctt cgttctgtat tgtatacata tgtatgtata 420
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<211> 269

<212> DNA

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tggaagata gtgccagcaa attcgaaggt tctgattctg attctcttct gcaattagtt 180
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<213> Ctenocephalides felis

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<210> 610

<211> 500

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<213> Ctenocephalides felis

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naatttatatt atgntaattt acatttacta ttgggtcatgg actgaagaat attctaagat 360
tgccagtttg naatccaagt ttacctgga tattatattt tactaaattc gaggaatgaa 420
ctatgaatga tttcataggt ggattaangg aagtaattct ttaattttat gaccatacat 480
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<212> DNA

<213> Ctenocephalides felis

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<210> 612

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<212> DNA

<213> Ctenocephalides felis

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ccatagatca gggcttctta aactatgggt tgcgaccca aatgggggtca tgtaaaaaaa 180
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aggacagaag ttttaagaacc ctgccataga taaataagca caaatgtttc cttatctatg 480
cataaatgat aaatcattg 500

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THE **NEW** **YORK** **PUBLIC** **LIBRARY**

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<212> DNA
<213> Ctenocephalides felis
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259

<210> 617
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 atactgcatn nagaatatta ttaattatta aaatcacaaa atatattaca gaaaattata 180
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 attgtaaaat gttgataaaa aaatatgata agagattcaa tttaaaatgt aatagtaatc 300
 tgtaacagtt acaacaatat ttatatacag tataacaata acaattaaaa ttgatactcg 360
 tatctgcaca aaaagtttca attggtgaag aaataatcag catccaatct atgattaatt 420
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<210> 620
 <211> 299
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<213> Ctenocephalides felis

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tctaacttta cgtcaatct tataattaag gtctgataat ttgccaacta ttttataagg 180
cccgtgcaat ggatgttgtg gttagtctga ttggccttat ctacgaactt cgggtgttccc 240
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<210> 621

<211> 491

<212> DNA

<213> Ctenocephalides felis

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gcaaaaagtt caatgtatta ttgatcacat aaagcaataa tacaaatttt tccaattaaa 180
tgcaacgcat tagtaaattc attgaaatgc aattcctaata gcattgcatg taaatagaca 240
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<211> 121

<212> DNA

<213> Ctenocephalides felis

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<210> 623

<211> 500

<212> DNA

<213> Ctenocephalides felis

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ataacgaaac acttagcgac aatgccagtt ggctcccaga ctttgatgaa ttagtaatta 180
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aaagttcaga gttacatctt acctcggtgt tggggcatgt tgtaatagct accggagcaa 420
gtagtagatc ggcaatnatg ctctgataaa tcattctcta ttattntata aaattaactt 480
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<210> 624

<211> 409

<212> DNA

<213> Ctenocephalides felis

<400> 624

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atcaataact gaaaaacgac tcgtcgatta ttgacaaaat ttaatcagca agattctcaa 180
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aattttgacg atttttcaaa tgggattgtg catttttgag aaaaggccac taaagatgaa 360
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<210> 625

<211> 600

<212> DNA

<213> Ctenocephalides felis

<400> 625

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<210> 626

<211> 480

<212> DNA

<213> Ctenocephalides felis

<400> 626

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 atctaaaata tttacttcgt gtaatatata atgggtaatg catgggagag gaaaggccgt 480

<210> 627

<211> 600

<212> DNA

<213> Ctenocephalides felis

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 tttttcatgc gaataggcta ctgataatat gttttattgc ttgccatttg gttaatttta 540
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<210> 628

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 628

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 gctaaactgg gatcacactc aaagtgaagc catcttaaac acattccaca ttgttgccaa 240
 gaactgctgg atggtattaa gtccocattg caattgcttt tgcaattaat aaacgogtct 300
 tgggaatttc ttagacatag tgaataactg taataataaa taaacaactt tatttgtaat 360
 acaaacacaa ttgttaattc tgataattca aaattttgtg aaaagatatc tttatcagaa 420
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 ctctacaaaa ttctaattag 500

<210> 629

<211> 111

<212> DNA

<213> Ctenocephalides felis

<400> 629

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<210> 630

<211> 103

<212> DNA

<213> Ctenocephalides felis

<400> 630

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aagacaagcc catgcatcac attattaaac aggtgctttt tgt 103

<210> 631

<211> 500

<212> DNA

<213> Ctenocephalides felis

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<210> 632

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<213> Ctenocephalides felis

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acacgaactt aatacttgta acatttgtca atgcgaatgg ttcttgcaaa aaagccaata 180
caaaaaatgg caaatattat atatgtatcc ttgaattatt taattttttt caaacaattt 240
tccaaaattc cnaaaagaga gaatgtataa ttcagggcag tagcttaatg ataaaacgat 300
cgccggaagc atttttagctt actatgacat gactattatg aaaataaaat tgatataaaa 360
tgtgaaacat ttgaactata aatattatat ttaataataa atttgntatt gntatatacna 420
caaaannaaa nanntngctg tnanaanaaa aaaggttgaa cttggggccgg anaccgnta 480
ggccgaattt tgganatttc 500

<210> 633
 <211> 392
 <212> DNA
 <213> Ctenocephalides felis

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 gtaaaatact ttaaataaat aattagccgt caaaactccc accaaatttt atacgtctgt 180
 ttttccgtgt ggaggatact ggcaatgaga actggtttca ctaaactcgg cgctcttcaa 240
 acatttcgaa aatcttaggg agaacaaaat tacaaataat tagtcatatt acttacatta 300
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 ccgctcagtc cggattttaac cttcaatatc gtcaatgtct tgaacgcgag caaaggcaga 180
 ggtgctgaat tgttcgctaa gcgcgcgaag aaatctgaga agtggatcgt agatgaaaca 240
 agaactactg aaaaaataat caacaaagaa aattctgttc agcagtattg gaaaccatca 300
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<210> 635
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 <212> DNA
 <213> Ctenocephalides felis

<400> 635
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 gcattntttt ttaattctct atcatattca aatgcgctta tgatacaagt gcaaaaatta 120
 catgcagttt tcataatcca aaagatttta taatcgtgta aatgtattta tagagattgc 180
 actactaggt gggcgcaata ataatgctct tactaaataa tttaatacat atattagagg 240
 caccactcta gccttatgct aattgatttg atctatatc agaaatgata aaaattaatt 300
 cactgtagca gtattattca gttgttttaa ttagaatttt aatctaaatt gcaaaatttg 360
 tatatgaaat aaaagaatag gtaatacact agaatacaat gaaataaatg caatgaatta 420
 gatcaciaat cattgacttg nttttttata ttaaattcaa aagtttttat aaaacatttc 480
 attgaattaa atcaataaag aaagatagaa atccaaatat tacaagatac attattgata 540
 ttttataata atagtatgaa tccataactc atgtggcaca gccattatta acaattaaat 600
 taacaatatg aaaatcctaa tattaaaact atatttaaga aagcacatt 649

<210> 636
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 636
 actcacatct atctaaacat acatatatga tttgcagaaa ataacatttt caagtcatat 60
 atgacttgan tttgctcatt accatataat tttgagattg gcctcatgtg atgagacgag 120
 gcttattttat aatgaatgta aatgcacaaa catgtgaata atattaatag gattagtatg 180
 cacgaaaaaa ttaataacaa taaaaaagaa agttttggat tttagattga gaattaaaaa 240
 ttaatatatt agatgtaatg attaaagtgc aaatgttttag ctatatttta attgntaaca 300
 gtggaatgtt tattttggat tgaaatctgn tattgctaata gtgataaaca ttttttctgt 360
 gttatgcaca tcaatttttg gtattactgn gttttaactg naaattataa tattgcaaaa 420
 atcattagta tattttttca tgaagttcct aaaataattt atcatttcaa aatatgggcc 480
 catgtttaag ggaaaatgaa 500

<210> 637
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 637
 actgaattat atcttaatta aatttttgga tatttcgtag aaatataatc gaggatcttt 60
 tcttcaagtn ccaaagata ctgttacgac aagcccctag tcgtcctatt taatttcaat 120
 ttttactcta attgtcggtt acaattgatt ttgagctgat tttccgtggc tttagacacg 180
 tttttccatg gtttggcaac cttgttcgat tttttagttc ttttatattg aatcgtatga 240
 tcgttggtcc ttttaatttc tttttgaaac agtccttggtg tggtttgatt cactatttta 300
 cttttaggct gcactcatag tcagtaatta atatacacga ttgctgattt catataaaag 360
 taatgtaatg taaaactaga aatttcataa ataatacata ctaaaaacta ggaacgaaat 420
 taaagtctgn cacttncttt tgcataatgt ccttctaaaa ntagaaactc aagaagttaa 480
 actatgttgc aaagtttcag 500

<210> 638
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 638
 acanagctgn aattaatatt atattngtcg gagggcattt tcaatcnata tcctatagtc 60
 gaagtgtcga tgtgangagt ccgcatttat tattcagact tctccatttc ccgctttaac 120
 gtttcgatat aaaatcggtt atgatacctn cttaaattctt tacggcctta ttttagcttt 180
 ttattgttcc gtgntttgta tactgaaata atgatgaatg cgcgaaatatt taatttacag 240
 tcttcaaagg atatctaaat gttgtcggtt tgnccgntcgt ctgcctgtcc gtctattggg 300
 cttttgtgaa ttaacaataa ataaatatgt attataacag tttagactat cgtatggtag 360

caaattatatt tattcaacta attaaaaaaa caggcattat cgatttataa ttcttgaaaa 420
tctaagggtgt gataaanaaaa actggtggtg tatggagagg agaccctatt ttntcaagta 480
aaaccgggac gataatttta 500

<210> 639
<211> 112
<212> DNA
<213> Ctenocephalides felis

<400> 639
aatttccata attataatac tataatttat ctttttgatc gctttatatg tgcaaataga 60
gcangccaag cgcgcatctt ngcagaattg cgaggaaggt attcggggcc ga 112

<210> 640
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 640
acgaacaaag ttttttcgta tcttttactg nttagctagt agagagcaat ctgngtgatt 60
gatcacttat tgaaatgcaa attacattta gattgcagca attattgaca atatttctat 120
atatttcataa agaaaccata taaattataa tacattgnta aaatttcgta tggntctcca 180
gtcattcaat tctaataaca atcaccattt aggctaaaat cttgcatggt ttctgccttc 240
gaacaaacgg ntattcacgg ncagcgtggt tagatatagc agcagagccg catattcagt 300
tcagcaagcn ttcaagaata aaagaataaa ataatatatta ttaaataatca actaatatat 360
aatcttttct cggcaatgaa tataaganat tattatttta ttctatacan tggattaaaa 420
aaaaaaaaac ataaatttat ttttattatt aatgctaaat tatttatcnt tcgtttattt 480
taataaanat aattgaanga 500

<210> 641
<211> 322
<212> DNA
<213> Ctenocephalides felis

<400> 641
nnnnnnnttta gccccgntgt gnttcggcgn cgccccggcg tcatattaaa acaaccggcg 60
ccgggttttt caactgaaag aaatgttttt ttaattcaat tatttataat taaatacaag 120
tgaataaaaa ttacatttaa gagtattatt attgcttaac aaaagagtat taaaaaagtc 180
tactgatcat aaatcaatag tataggaaaa gattggtaat atattggatg aaggtaaaat 240
acacaagaaa tcaataaaca aaaataaata ttgtgaaagt tatttacgcy tatataaatc 300
atcttttaac aagcatcatc gt 322

<210> 642
<211> 500

0991936-1101

<212> DNA

<213> Ctenocephalides felis

<400> 642

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actccgcgaa tctattgtca aacatgcttt taataccttt tatcatttct gaagaatggt 60
gatcccaatt atcattatctt aacctttcaa gataagattt gaagcttttg ttgccttctt 120
aaaaaatttt taagttctgc cattttaatt gtttttagaa ctcaagataa cttaatttaa 180
ttttttgata gggaagcgca aaccgttaca aaattttacg tataacaggc gttatgcaat 240
atcagcgggt atatcagaat ttaaatctat aatcaattga ttatttaaca attctaattt 300
aataatatta gaattggagt ctagcacatc agtaacataa gttgngnggt taataaatta 360
acaaatatat aaaccaataa ttagtaatgn ttataataac taatataata tttcataaca 420
attaataacc taaggattta cgaaattggc ccaaaatctt agagcaagac caatttcaat 480
caataatatg gtcaggttta 500
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<210> 643

<211> 127

<212> DNA

<213> Ctenocephalides felis

<400> 643

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actaaaattg gttacaagtc gaagtccagt attataaaaa agttttttcc aaggaacata 60
caattcttta atgtatggca aacatattac accagaatga gtttctgagt caggtaaatac 120
gttatgt 127
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<210> 644

<211> 393

<212> DNA

<213> Ctenocephalides felis

<400> 644

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acaaaaaat gtcccgggcg ttaaacttaa aaggcattgg tctctgaaac aaaatcttgc 60
ttgaataact aaatttttta atacaagaat taattattcg gaaaaagttt gagattgttt 120
taagcttaaa acacttgtga aaagttttat aaaggaaagt ttcatagttt tggagatatt 180
taattaattg tgcaaaaagg tcctgtgcgt caaacttata aggaatagtt ttcttgaaca 240
aaaattagtt tgaataacta atttttttta tataaaattt aattgttggg aattgtggtg 300
tatgcaaacg ttttagattt ttttatgctt aaaacacttg tgaaaagttt tatgaagaaa 360
agttttatag ttttggaat attcaattaa ttg 393
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<210> 645

<211> 394

<212> DNA

<213> Ctenocephalides felis

<400> 645

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actttaactc aatgctatct atacaggtta caatattata tattaaccca tctgagtatt 60
```


ggaaaaaaat taatactgct tattataatt tgtgataaag cacaaaattc ttaatttgtc 120
 actgtatttt tacatatgct taaattataa ttttaattta tttttagcat ttgttggtaa 180
 cttttaattg tattctactg atatagattt ctatgtaagg aggtttaatg gtttttttac 240
 aattcatgtg tggatatttg agaatcaaga aagcttttct ctaatatattt atacctctaa 300
 actgaattga ttaactctat tttttcttaa tatttataac ctctgtctcc tccgcgctgg 360
 gtgcgaggta ttgattgctt ggaccgcgcg aagt 394

<210> 646

<211> 435

<212> DNA

<213> Ctenocephalides felis

<400> 646

cgcgggctcc gatncnnaat gcacgacntn tanggcatgc gtgnaagtgc gctattaata 60
 atacagttac aaagattant gnaacntana antngccaan cggaangnnt acgttgtaat 120
 nanagggaaa acgttttttc annctttnt ntggantaag atngttaaat tgccgattnt 180
 caacangnat nggnnnagta nnaaacnagg ctcaacggca aatgccttcc acctaaatta 240
 ttttgtgaac ccaanaaaaa ctatccatac ttnattantn tngacgggtg cggtccatta 300
 aagcatgana nttnnccgca tntntntcgg tttttgacan nangngtggn ntgcaaacnc 360
 ngannnnang acanactnaa tncnagnatg agtgagtng cgtgagttag agcatncnaa 420
 anggatgcgc cgtn 435

<210> 647

<211> 492

<212> DNA

<213> Ctenocephalides felis

<400> 647

tcntacacta caaaaatgat ttttatattt aatgaaaata ctnatttata aaatatctct 60
 tcaataagct atagttataa caggcnctnt taataattat gaattgnntt gaaaatgatt 120
 tacaataaag ctatgtgaaa caagnntgtg tngtatataa catcatcgcg tnggncgggc 180
 ttttcttgt tactatattt ttaaaaattt aataaaatta gctttgtagc aaatgctact 240
 gtntgataat tgaattttca ngaatagtag gagttgtagc aggagtcttg ttagcttcac 300
 gccatgcttc atcaaaaattc tgaatagaat tagaacnaga tgatgaaact tttgtcttaa 360
 cgttttcata ggctggccca ttttntntnt ngtgatttga aagantcaga atttctcatc 420
 tgcccatttt ggtgnaaacc cccgtatttc ccttaccaan aagagttttt cggggnagaa 480
 ttantactng gc 492

<210> 648

<211> 417

<212> DNA

<213> Ctenocephalides felis

<400> 648

acgccgttgg cgatttccgt gaaaatgttt gacaatgttt gttccagggt tggcttgaac 60

tcttgaaga atagtcttgc gttgtcgttc acagcctggc taagaattgt tccaagggtt 120
 tgatcgttgt taaagagacc ggataggcgt attttattgt ttcccaaat aattttcatg 180
 tcgattggtt tgacttgag gcatcgtt cgcgcacaac tttctttag ccatgtattt 240
 gcatcctggc gtggaatca gctgaaatag taatataaat aaattactat aaatacgcaa 300
 ttactagaaa tagtaatgta ataagttaac acgttcgcgg gtgtgaatgc tatagcattc 360
 atcgtatata acgattaaaa tatgatgatt ttaatactac caatataata tgaatgt 417

<210> 649

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 649

ttctaaaata atattgaata aaaaatagta gatacaatca gtggccttgta taatagggat 60
 agctataagt agtgaaaatg gaagtgccta ttagaaatac ttttcaaaa cgaattgtaa 120
 tgattcagta gcaacatatt aaaaaataaa attgtcaaaa tacttgcttc aaaattatgc 180
 tagtattctt ctcatgaact aacattagct taattttata attaactaaa atttttgaat 240
 atcctcacat tatcgcaaat ccttggtgac tacatcgtct tagcatatta cctagaaagc 300
 atttcacat caactgaca atttattgga caattgatgc ctaacgtaat taccaatggt 360
 tacatcaagt aagatgctaa taattaacgt tatctatgtg cacgtaaata atgaaacaat 420
 aaaatttcgt gagtttctta agcgtgcgtc cctcagaggt caaaaagtcg aaaagtcgta 480
 gggtcatgat caacgaacgc 500

<210> 650

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 650

acctactatc acagtttttt tttactaaca gtttagctat aagtaggatg gtgaaaactt 60
 ttaaatTTTT tacatcttac tagcgatttt gataatactg attcattggt tataaatctt 120
 caaagaaatt cttagttttc tacgtatact caaacgtag tcaatacgta tatatccaaa 180
 ttttacaccc catttggtgcg atttgctgcg cataattata tttacttcgt atattgagca 240
 gttactaaaa ttgtatacta cgttttcctg aatattattg aacatgtggt gaataaattt 300
 acaccttacc tttattgaaa atatttggtt gtcgatagta atacgtggtc tttttacaac 360
 aattttgatt gctgtcaatg tagttgaacc aacctttggg ttcaaaacaa aacctatcaa 420
 tttgttgttt ggattccttc gtaaaaatct gctacacata gacattgagc aaaaatcaga 480
 aaaccctttt gtatccgnag 500

<210> 651

<211> 483

<212> DNA

<213> Ctenocephalides felis

<400> 651

acacctatta aggagcaggt ttcaatatta ctctaataga cctattgctt acacattgtt 60
atataaacat cactaaatat ataccatcaa aacttctaca agctaaagca gtaaatcatt 120
aattaacatc tagaatatac aaataagttt tcataaaatt ttcctattct gttctaaata 180
tatattttgt gcatcgcaat gaaaatacta agacgtatat attaataatta aaatatgtaa 240
taacttacaa ctgtcataaa gatagtgagt tataaatgaa aatatctcag atggtataga 300
taaatttcaa agtttttaaat taaaaacttt ttcgaaggta acgcgaagtg caaacgaaag 360
tttcaccata aatagtttta gttcatttta ccataactcg cgataatact aaatcgatga 420
aaggctgaat tattaagtt atcagaacaa tgaactgtta gcacacatat gcacatgtat 480
atg 483

<210> 652

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 652

acctcatgag cagttgcac aatcataagt cgttgctcgt agctcatcgc aagcaggtgc 60
ccgcaaatta tcgcatggtg attccttgagt ttctcgttaa ttctaaaatg taaaataatt 120
tacatgtaat atatacccaa tacactatta catatgaaaa cttattatat atttcttcaa 180
ttcaattatt attattatat tcaatatatc tagcaaataa cgatcgccca tctcttcgcg 240
ttcagtggtg atgtcaaacc tgttcaaagg agattggaaa cacgttgtat ttaattgtgg 300
tagatatggt gttatcctct tttggtgcga atagtattat ttttgactag cttattgaat 360
aatgacccat aagtatggtt tnaaaaantc ttagcntttc catgtaatta ttttgaaaga 420
catattgaca aatcgttgca caaaganctc ccatttngtt atgaaattca gatgnnttag 480
ttttagaagg ggctatttat 500

<210> 653

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 653

acaatgtata ttgaataaga tgtgagcgat accttgnagg gatgtcgcat tgagaattta 60
ggtgtggaaa attgcaatag cattaaaata taccatttga attagatttt taaataatac 120
caaaacaaat cataaattaa attccttctgt agatattcat acataaatat tggctttcca 180
gaaagacaac tatgtagatt tcacattcac tccaaaatta atgagttatt atataacaaa 240
tttttaataa acttatatac aaacactatg cacaagtgtt gatgatatat gaccttaaaa 300
agtaattaaa tattgcgctt aaaaatcaaa tttacatata catttaacca ttctatctct 360
agaaaactag aacagatatt cttatgaaaa atttgctatt ttaaataatct caaaggtttg 420
gaccatcttc ataataaaat ccgtntctcg cgngacacgc tagcgatctg ggatttcata 480
cctgnggcgg tcggtgctt 500

<210> 654

<211> 330

<212> DNA

<213> Ctenocephalides felis

<400> 654

nccgcancca aataaactcc tcttcataaa ttaatccntt atgttaacaa tttttttaaa 60
tattganaac aacctttaaa natcgatgac cttacatat taaagcctta cttaccgcaa 120
aatgaagatc aaattgtgga ttgtcttta ttttttacac attccaaact tttgtcaatg 180
acaatataat attaataatt ttcacttatt ttatgtcaca cttattatta ttattatgat 240
cgaaattaat ttttaatttaa taattaatat tcgttgtaac ctcattggaag tatcggtctt 300
aactacgcgg ctttgtaacg ataacaatgt 330

<210> 655

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 655

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cntaatatth ttaatacnng gntaaaagaa anggtaaaaan tttgggaggn tttaaaatct 120
ctaacnaggg taaaccnnaa acnaaaaaaa taatttaatc attactctct ttaactttat 180
ccntggcctt tataatactt atagataaaa tagaaaatag tttaaatttt nctnaacaat 240
gaattcattg nttagagac gctctttact gntctatcct acaaaatact atacnagccn 300
agtatttttg aatatgaatt ggatatttct aataaagcta taaatacnat cngtattttt 360
gaatttaaac ntttctttat ggtatcttcc ncagatattt ggtttccata tctacnatch 420
ccntgaggtt tcttctaatt tcatcaattc agaagacntt tctttttcaa ttttcattat 480
atttgccnch ggatttcaac 500

<210> 656

<211> 73

<212> DNA

<213> Ctenocephalides felis

<400> 656

acaaaaacat aacttcattg agaaaaagca attaaatcat tttcacactt tctaattaaa 60
atgaaatgat cgt 73

<210> 657

<211> 425

<212> DNA

<213> Ctenocephalides felis

<400> 657

acaccctga tattacaagt tgctaaccac tgtcataata ttagatttnt aacaagtcca 60
gactgaaatc ttagaaccct tgagcttttag ctgatattaa cggttcatat taacttttct 120
cagactattg cgtagtagct gacattacac attctctcac gaaatcataa acctacatcg 180
acaaatctca gcaagatcat attatcgaca ttccgcctag ttaacaattt tcaccaagtt 240

tgcataaata acattttgtt taatcggcta aattcattac tttgtccttt tcgttgcata 300
 gaatattcga gacaaatccc cactacgttt caaaggattt tagttttaat aattatgaaa 360
 taaatcagtc ttaatctgtc ggtcgccggg caaacacttc tctttcaata ccttcggggt 420
 ccttg 425

<210> 658

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 658

gatagatccn tttcatgata aacataataa tacaaaattt taactcaatt tcaccgaaat 60
 gcttaaaaatg taaaaccttg ccactcgctc gccaatataa tcttgaacga aatagaaaac 120
 gacgttgctc tttcaaactt tgcataatat tattcctaga acacttaata aaacaccgat 180
 ttaataagat ttttattgnc attattttgn tcattacatg attttcgta aaatatatat 240
 tttaggtatt tgcaaaaaaa cgacgaaaaa cgacgaaaaa cgccaaaaat atatgaatct 300
 ttagtagcca gtaacttgaa aagtatgaag tttttttgaa aaactataaa atccttattt 360
 ttaaaaaaat acgtaattaa acaattgaga agaaccgaa ttgntttcac ttttgaactt 420
 ggtgtagatg aacctaattc ctaatttcat gcnattcggg acacagtaaa aaattcagac 480
 acaaaacgct cgttactgcc 500

<210> 659

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 659

acaacattgt tgtaaataat atgttctoga tccaaaatac aatactgtag ggaaataata 60
 tgtgctcgaa tttaaagaaa tgtccgggct cgtgtaaact acatatatga tgaataatat 120
 aatcatcaaa tactattggg tataaagaaa atgcattgaa tattccagag tataaataat 180
 aactacttta cgctcccggt tgggctcgaa ccaccaacct ttcggttaac agccgagcgc 240
 gctagccaat tgcgccacgg aggtctctat cgcttcttga taatagtagt aataaattat 300
 ttatagcatg aacaataatt ataattattg aacaataatg agtataaaca acaattattc 360
 ttatacccaa taaactacac taatctgtaa cccacggcgc aaccagtgcc caatacctgt 420
 catacatcgc gctcgattca cttcacacac aaatagttaa catttacttc actcctataa 480
 actatacaaa ctatcaaagt 500

<210> 660

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 660

ccttttagcga accgcgtcag aatttttcca ggattcctca atttgtttat aaaaatataa 60
 taaattttca agtattttcaa ttttatttgt aaaactacat ttttgatatca ttattatcac 120

gagcaagtat tttgtgccgt tgtagaaaac agctggaagc acttaatgct tattgtgttc 180
atgttctcat tactcaggaa tatgagaatt gagaaatggt tcatttgtaa gtccacactt 240
tttcattcat tagaaagctc tCGTcttgaa gtcgtttact caataattta catgtttatc 300
taaataaaga aatagtagaa acttaaatac aaattggaat aagagcatcg gtagaatata 360
gtataaacia caaagcaatt ttaaatacatt aaattacaaa ataatacctca gtttctctat 420
tgtcaaaggg atgtgaaata ttttgatgnt taattttcaa aatcttttat ttaattaatc 480
aaaatattat tccagcgact 500

<210> 661

<211> 412

<212> DNA

<213> Ctenocephalides felis

<400> 661

actttttgat atttatgtaa tgattattta ttcaccgatg ttaacagctc aacgtctgaa 60
cgaatactcc aattaaaggt tggatcagcg aattattatt acaaatgaag atactgagga 120
atgactggag atagctgcaa caaactatct atgtaaatac aagcagtaaa ttacctgcaa 180
cagttttaca caaagtattg tattacgtaa tagccggtgg tgattttctg tttcaaaaag 240
ttataacttt tcaagactgc cagtatggc aagactactg tataaaaatta tcaacaaatt 300
atagaaatat ttacaataaa caagggttta aattttaaat tatataaata aataaatagt 360
ttgatactat ttaacaatat ggtaattat attgctcttc gaatgatatt tg 412

<210> 662

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 662

accatagtgg cgcttagact gtgcttagct tgggtaaatt tttaaaattt tgaatccaaa 60
attacataaa ttttttatgg aaaaataatt gtttatctc aaaagcaatt gttttgtcaa 120
tacaagcaga aagtttagtc aaaattctag tagatacttt ataagaacaa aaattaggca 180
aaataatatt ttgatttttg gcaagtttca agtggtaaat agttacttaa tgcaattgac 240
tccattgtaa aaattggtga gggtaagtta tagtaatagc aaaaaaagg agaatgaaat 300
atctcacatg tctttacatt gcaaagggtt ctgatcgttt taaaaaaat gatgtatgaa 360
tgtgtgtgag aagtaatttt tctcattatg ttatatataa taaaaagtaa aaatcagaa 420
tttagggata aaagtagttt atgctgataa aaaatctata tgtaaaattt ttaggtatat 480
cgggccagta aaagggtgaga 500

<210> 663

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 663

ncatnaatta cttagccac aatgtataaa tntttcacta ttaagatnta taacttntct 60

ttttcaaadc ntatttttggg ataaaantaac ttatcataaa ataaaaataact gggtaaaaagt 120
 atggataaaaa ntnatatcan caataaattt tcatgaatct atntaataaa atggnaaca 180
 tcgntnttta ataaatgggc ttcaaatttg actngaata gaatacttgnta ttgcttccta 240
 ggtaaaaatn atattttttaa tggacaaaat gttactataa tttcttnna tttatataac 300
 aagaaaaata attctaaaat caatttcttt gattcacctg ttattttcca ngcgcggt 360
 aaaganaaaa tagttacnga ataatanaaa tcaaaagtga accggactgt gtgcaaattt 420
 tatgatcgag atcttgaaca gagntttgt aacacgcac tntgggttag tgccattgaa 480
 tantgttatg gtgggggtgc 500

<210> 664

<211> 295

<212> DNA

<213> Ctenocephalides felis

<400> 664

acttatgaca tatcatatta taagtttcta acaataatcc agtttcta atnaatattc 60
 cnggaactat gcttatgaaa aatgaattaa ataaaacatg aattgctaca tttattcaaa 120
 atttttgaag cattaacatt agtatacagc atagaatgct acaattagcc agatagtcag 180
 aaatcatttc aaaaattctc cgttcattggc tttgttaaca acaattattt taaacggatg 240
 ccagtttagat tgttttagaa taaaactttt gagagaaata taatataata atagt 295

<210> 665

<211> 310

<212> DNA

<213> Ctenocephalides felis

<400> 665

acttcaaaaa cgcgtataaa tagcgcgaag tctaattttc tagtttttat aattaattaa 60
 ttttcacagg cctataatat tttaataatta tgattttgtt tatcatctct atcaccatgc 120
 gacgtttcat aaattttgca gataagtata tctgaggttc tcttgtaag ttgtccgtgt 180
 tatttaaaac aagtatgatt taatttagca agaaccataa ttagatactt ttaaaaaaaa 240
 ttaaaaatgt aaaaaaaata tttgcaaaaat tttcccata tactattcca cttaaaaatg 300
 cccctgttgt 310

<210> 666

<211> 365

<212> DNA

<213> Ctenocephalides felis

<400> 666

acaaagcatc tacatatcgg agcctccagc aatattttcg cataatattt ttctgcgatc 60
 gattttctgt caaacgctac tcataaatta taccgacaga acgaacgtag cgaacatgaa 120
 aaatatctgc gcaaaatctg cgagctataa ttcaaacttt aaatatagtc ccgctttcac 180
 aaacagaaga tcagatcaaa agcttcgata cggcgataaa tcgatatatta taccgactca 240
 aaacgtcgag aatggagaaa ataatacgat gctgtcgaat ccggtaatag atttgatagc 300

aaagtataaa gttgtgtaat tacaaaccca taaatcattt tctccataaa tatcaaaatc 360
tcggt 365

<210> 667
<211> 385
<212> DNA
<213> Ctenocephalides felis

<400> 667
tggngttttt antgggactt ttnaaaanccc cgccgngcag tacctttatt attatgcttt 60
ggttcacgtc gggataaaaa tgttttgaac aagacaaagt ataataaaa taagnataaa 120
atgttttgaa caaaactaaa ttaatatata ccatttctgg gaaccattgc agactgataa 180
gatatcaaat gctattgaaa cgatatgatt tcaagaatca aaacgctttc atctatcttt 240
tatatttggc tatatttgtc attttccatt tatacagtga aagccgacta ttttcaactaa 300
aaaaccggtt tttgaattcc acaatttccg caaaaaaccg gttatcaaaa ccggtttttg 360
aaaaccgaca aatcctactt acagt 385

<210> 668
<211> 160
<212> DNA
<213> Ctenocephalides felis

<400> 668
aggnntngng aacccttttna aancnagact tnctttaann ccccgnnagt tacatggntc 60
aaggagncta gccgccatca gggaaagtn cagacatacc gtttatgtcg aacaaatgaa 120
agatggcgaa gngctgtca aactggaaat ttcanaatgt 160

<210> 669
<211> 320
<212> DNA
<213> Ctenocephalides felis

<400> 669
atattgcttc tacaaatgca atgaaaagtc aatttgtntt gaatgtcacg taaactaata 60
aaggaaactta tagataaatt atagcgacac aataatattt ttatttcata cggtataata 120
tcatcattag tataaaattt tccgaaatac tcgcataaac tgctaataata atgaaaacaa 180
ctcacgtatt ccgcaagggt gtccaatgca tggatcgaca catttatatt gagaacacgc 240
taaatggttg gggcattcac tatcgctaaa gcattcgccc tgaaacgaaa taaaaaattt 300
aatttaacat ttgactgagt 320

<210> 670
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 670

```
acaacaagtt caaatcttct tgtttgtgct ataattttct atattcatta taatataacc 60
ttattttttt aaggnaagtg ttacacattt tccaatgaat cactatgtaa tgtgatactc 120
tatttttaca agttgtgtgt ttgttgagca aacatcataa tttttgaaga gacagttaaa 180
tataaataaa aattcttcac gtttagatat cgtatgaaat cgttcgaaaa ataaataaca 240
gtgataaatt tttataaaaag caaattgata aaataaagtt tgataaagaa aatgcaattt 300
tagctaactg gactttcagt gtagtgatat catatcatga atttatcatt accgattgaa 360
tattttatca caataagttt tgtgcatttt atttgaaaag ggcttgctcg tggcttaatg 420
attatgacct tggctttcca acaagaaggn taaggcttga tcccatttga aatcagatg 480
gaaatatatt tctagtata 500
```

<210> 671

<211> 332

<212> DNA

<213> Ctenocephalides felis

<400> 671

```
acaaaaagat atgatttggg tcttattcatt attgagaact agattattaa atttatttga 60
nccaaagtaa atcngcaatc atcttgtgat caatttctac ctctgatatt tttctatgtt 120
agcatttttt atcataacaa atactattaa attaccatt gattattata tggtttcaaa 180
tggtttatgt tataataaat tacatataaa atatataatg atatatcgcg tgcaaaacaa 240
aagttatggt taaatcgcg gcaaactcta caagtataaa cacctaatta agcaaatgtt 300
ttcaattaaa tgtaaaagca gttttcatat ag 332
```

<210> 672

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 672

```
actactcatg tggtttttct cttccatcca ttgtctattt cgaaaccttc actatcaaga 60
agcacgagag ccttccattt attttgagag ttgaccaaga attgcagtag cagccagctg 120
cagcatattt catagctgat gatgttttct taatattctt tgttttgcat tgccggtatt 180
ctctgtaaaa aaaaaattat tacattaatt attcaaattt atataaaaaa ttaccgacga 240
attttttaaa tcatttatat tatttgactg caatactoga gtaaattaaa tttgtaatgt 300
aaattcatca ctgataaaat ttttaaatat tatcaagcag tttacaata acttacatat 360
atttgatata aagtctttga ttaggtagcc atttactagt aattctagga tttgcatcat 420
acatcctctg atttgccctgg ctttcttcca cagtctcgct tgacgtgttt agttattcaa 480
gccaatccat tgcccaaag 500
```

<210> 673

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 673

```
actatgaaga atgnttctat ataatttact gnattgnagt taactatatt taaatgctaa 60
cgtgcattta tatgttaagn ttagatttat tattgntaat attatatcta aaatgattcc 120
tacatataaaa ataaataaaa ctttctgttg ttaaaacttt agaaatgtag ttatttttaa 180
tgttacatta ttgaattaat acaagtttta tataacaatga aatatgtttt aaaattgtat 240
attgntcatt atattttcat gcgccagtaa tagttgctgc aattccttca ccacaattga 300
agttttcttg tagttgttgc agtttgttta ccattcatca cagtagacaa tcatccaaaa 360
gtagattgnt aaccatttcc atgaagtaga aatcaccaag ttagacttcg aatgacatgg 420
cttaattctc ctctgacagt atacaaatct aactccatat gatttgttca ggaccaanga 480
cgcatTTAAC atgcctcctc 500
```

<210> 674

<211> 296

<212> DNA

<213> Ctenocephalides felis

<400> 674

```
acaaatttta gaatgttta atcattaagt ttgaataaat taccttaaag atgaaaattt 60
agctaacatt gtaaaagcat gttttgttgt aattttttaa ataacgtatt ttagatatac 120
ttttcgcttc ttaacaagcc aaattatgaa tgattctcat gtttagaaac aactaataaa 180
aaataaactc agtgcaaaca taaacattaa tatagacaga ttaagtagat atatcccttc 240
ataaattaat tgatgtcatt cattattcag ataacacccc tagtcaatag gtttgt 296
```

<210> 675

<211> 461

<212> DNA

<213> Ctenocephalides felis

<400> 675

```
cataataatc ttgcaaaagt aatatttgaa atgaactata ctacaaaacg aaacagcccc 60
cacttcctag aactaactcc atctgaaatc gacggaacat atcacttatc attgattagt 120
ttgttttatt atattttaca atatagacaa ttatttttgt atggaatgaa acgagtttac 180
acatacgaag caaacatgct gaatatataa aaatatttta ttttaagttca ttttattaat 240
cttgctgatt ttgaagaaat gaatctctca cattcataat atgatttttc ataaataaca 300
acgaaataca tattgttggt taataattat ttttaacatc agaaccacat ttagagttta 360
tttataattc ggcatctatg ttatgtcgaa attttaacac gcagaattta atgaaatcgt 420
aattaactgc tcgatgcctg acaatatcta gcgtctcaag t 461
```

<210> 676

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 676

acttcccaaa agttgncagc gaaggatcct acaagggcga cagcagcttt ggagattacc 60
 aaatcaagag ccgnggaatt ttcaacgtca ccatgtatga tgtgacagtc acttggaaaa 120
 tcgaaggagc aactgaagaa cgcgatggag aaacttacat gcgcatacaa cacttccgtg 180
 tcagcccaaa agttggtgat atgaaaatct atgcaagtgg cttataccag atgaaggact 240
 caataacgca gccgntgcct tcatgaacca atactggcaa cctgccttcc aggcactttt 300
 accatacgca gaagaacacg gagaccaa atcatgacaaac tttgtcaacg aaatgttctt 360
 gagaatccca ttcaacaaat taatgccagn tgaataaagc caaaatttaa atatgtatat 420
 aaaaaacata tagtaaataa gcaaaattat tttgatattt tttggngatt ccaaccaacc 480
 aaattctatg taggttgat 500

<210> 677

<211> 500

<212> DNA

<213> *Ctenocephalides felis*

<400> 677

acgtatacta tactctatac agctgtatgt gccacacacc aataatgtat caatatgata 60
 caaagaaccg atttgaaca tttttgtagg gcctttccat gacgtcacgc acatgcattg 120
 aatgtttttt ttgttcattt agaatagtta ggaaggtagc caaaaactcg aatccaaata 180
 tttatacgta tccctttttt ttagtttgaa ttttgaattt gtatcaaatt gatactaggg 240
 acggatgcgg gttaaaca aaagatcgga ttagtgatag tttcaaattt agcatggaat 300
 cattcggatt atttcctact attaaagacc ctacgagaat aactaactct tcctcatatt 360
 gtattgataa ttttttcaca aatatactca cggtaaattc atgtgtaatt aataccggtc 420
 tttctgacca ttatggaatt tcgctctctt tgcctaatac tactaattct acttcccatg 480
 tgnatcggnata taaaaagaa 500

<210> 678

<211> 475

<212> DNA

<213> *Ctenocephalides felis*

<400> 678

acactatgat cagctcaaaa aataacttga acgcatatga taaactaaac cgnactcaaa 60
 attttaatta attaattata gattattggg tagatcttta tctataattt aataaaatac 120
 aacttatatt tctgaaagca tagcactgaa taattatctg acaatgcgtt acccatgtag 180
 atattttact aatgggaaca atttaaata ttttaatttc aaaattagta atgcaaatat 240
 ttgcatgttt tgtgtttatt ttttaatttc gggattaata atcctggcag ttatttagac 300
 aataatgctc aaaaaatatc taaattacaa cttgtttcat tttttttta aacacatctc 360
 tacataaatt aaatacgtaa aatataaatt acatattacg aatataattt gtataaaacc 420
 gacacgccac tgatggcatg ntggtaattc atgacattaa aatgcacccc ggggn 475

<210> 679

<211> 500

<212> DNA

<213> *Ctenocephalides felis*

<400> 679

```

acaaagntat taacataatt ggtttaacaa ataattntaa atatgatnat taaacagngc 60
agggngncag ntaaaattat gccaaagtga tggtaatttc gagttcataa aatttaataa 120
atgatgcngt catatttgaa gcatgtatga aataaaaggc ctttagagta aatacaaaata 180
tcaaactttc tatataggnn acaaaattga aattaaatat tcaaggaata tttctactcc 240
tagtagatgc gtcattttta caaaataaaaa aacattatta attaataaacc ataataattt 300
aaaccattat tctgatatcc taggntgcat tgcaatgtca aagctcttat cgctgatccc 360
cgagaaagct ctttaatatata catatgagct tgatttctcc ctttgcgntt tataagnaaa 420
tttcaaagat ttgnntcgat attattaaca tttgcaatat ttataattga tcacaaatta 480
gtgctaaagg tgaaattatt                                     500

```

<210> 680

<211> 475

<212> DNA

<213> Ctenocephalides felis

<400> 680

```

cagcatattt tatacgcaat gttacttaaa aaaatgttac atttttatat aagaagaaat 60
naacattatt atttattagt ctgatttcat ttatcttaat acgatattcc tttaaaaaga 120
aataattatt aattttaatg acaaatcaag ataatatatt gacacttggt tatacaagaa 180
atcgacttaa gatgacattt attttcaggg attatgagat ttaaaattta tatggttccg 240
aaaaactcag actcaagaaa cattagtgt aattgaagtg attgcaaaaa aattaaaatt 300
gaaaatcttt gaattctgat attttggcat accttaggaa aaattgatgt atgtgtgtgt 360
atgtttgtat gcatacgcg atacaactgt tcgttgacga ttcgcacgga tcaaccaatt 420
ttaattggcg gcaaaaaacga ttagacattt gcacatcgag attttaataa tatgt 475

```

<210> 681

<211> 387

<212> DNA

<213> Ctenocephalides felis

<400> 681

```

acacaaaata tgacgagaca cgactttaat aaaaacatat tttgtgcaca tatttttatt 60
caaagattta ttttgaagtc attgttaatg agagtaattg atagtgaaga ttttagcttc 120
ttcataaaat cagataaaac cggtaaaatg aagtatcaag aattgaagaa atttttgtaa 180
ttggcaaatt caaactatgc actcaaattt tgtattttaa aataaggcgg catcaaaatg 240
taattaaaaa tttcataaat gtttgaaca tgagtgcatt ttccacagaa tgtcccatat 300
aaaaccggca tcacaaaaaa gacatgtaag acataactaa cataaaatac cnttttctat 360
gagacatcct cataactctc aactcaa                                     387

```

<210> 682

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 682

```
ncctattaat gttaaaagaa taataatnan gggtagagttt taccgatggg tggagaaagt 60
gtataaatcg ttttngccga tggatttggt taataaaaag aaaactgcac cacctgccac 120
gtntttataa tanttctata atctgcaata aaaatcatct gccatgaaat atgctccaaa 180
ataaaaaacg agtatatcgt gaaaaaatat tttgaaagtt ataacaaatg cgttgcactt 240
tctagtttga ttagttcatg taaaaaataa ttattcacgg catttcaata catgctccca 300
atatatttca aattattcac ccaaataaga aacacnactg tgacaattgc caaaccattt 360
tagataaaat atgtaaatat atcaaatgat cattatatgt cttacaaaag tttataagtt 420
atcaataaat aagaatgant ttatattatt atatctataa ataagtagac gtgtnatcc 480
accaatgaat ttcaattatt 500
```

<210> 683

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 683

```
acttcccgtgta acgtaattaa aaattcgagg aatattacat gttttcaagt agattattat 60
aaatactgta acttatatat gatcacggaa aagtaaataa acaaaattaa tcaatcgaat 120
ttaaatctga ggacattgta taatatttat aagaattata taaactgaag tgcaattat 180
tttgaatatt cagaacaaaa tttggcaata aaaaaaatcc aaaatcattt gtttcgtcaa 240
cacaagcaga aagttttctg aatcattcaa atcggatgct tagttctctc aaaaactgcc 300
atthttctgca catttagttt ggtatctaca aatcggctgg acctgtcttt gccaaaaact 360
aatttctttc tatttctatt ttctgcactc ttttctccgt atcaccgaaa cggctggacc 420
gacttttgcg aaaaactaat cagcacattt ccctatcaat aggaatcgaa tgttttttga 480
acaattcaaa ttggtgatcc 500
```

<210> 684

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 684

```
taagtttagga gatttatttt gttaatgtca ggtagaagaa gatagatgta tgaaaggng 60
taaggcttga acaatatcaa aaaaattgta attngtattt ttcagacaat agctaactctg 120
tgaaaaaaca ttttttaact ttcccgtagt taatacgata gcattcagat tcattttttt 180
tcatcttctt catcagatta tttagaggga tggccagatg ccantttttt gagaccttta 240
ggtcttttagc tcacctttta caattaaatc tttatgactg tttttaantt ttttttctaa 300
attctcaaat caatcattaa taacttgcgt aaaatttatg tctcttacca aatactctct 360
aaaatactac tacaataatt tcatcttaaa aaagattgct tataaaacttc gaaatttcag 420
atatatttta aagaactata tatataattg catatgttct gcttacgctt tgagcaaata 480
actaacatca gtaattattaa 500
```

<210> 685

<211> 343
 <212> DNA
 <213> Ctenocephalides felis

<400> 685
 caaaantgcg tctgagggac tgnntcttaa tttattcata atatcaaaat agttattnat 60
 ttgcaaattg ntggtaattc actcgcgttt gtttatttat aattatatct ggntttcttc 120
 tcgatttgct atttaacctn tagcagcctt ttgcactttt gctgntggta ataatttcct 180
 atccgtaaca acacaatggg aaactgggaa taatccgtcc ttaagcacac atacgcaatc 240
 actgtgcatt tcagttctac taatttggtc taccaaactg tttgatacta cactgatgaa 300
 gttcttggtt tgcttttggg ctttagcgtg ttggaagntc tgt 343

<210> 686
 <211> 436
 <212> DNA
 <213> Ctenocephalides felis

<400> 686
 acttcgtaat gctcaattgt aaccgggttt gtattccatg ttagcatagc acttggtgctt 60
 gtaacagact taattctaag atttatcacg tcagttttaa tattaggctc acttggtcgtt 120
 atattaattt cagcgtaatc tacaacatca ctttctatac gctcggcagt atgattccat 180
 aatcctatth cattttttaat tctatagcta tttaaaatag ttttaggaat agatttagaa 240
 aaaatacgaa ttctgtaagt cttcaaaggg tgtaaattcg ataaagatat tttagtatca 300
 gtaaaatatt catcccttgg tttatataca gtattgcggt cgcaatcgaa acattttatg 360
 ctataaacia taatttcacg attcgggttt cttgaatctt ttgtagcatt agcatctttt 420
 ggttgtccat gtgagt 436

<210> 687
 <211> 403
 <212> DNA
 <213> Ctenocephalides felis

<400> 687
 accgttcagt gcgtttataa tgaatattat acagaagtag tattaagata gaattttttt 60
 ccgcggaccg gaataatata ttaaggtaag gcaaggcata atatttataa gatacacaag 120
 acattttgcc ttgaatatta atacatataa tataaagatc actatcaagg tgaggcatat 180
 tattttattaa taacttatta ttattttaac gagtttttat gttttcgttt taggggtgta 240
 tagcgaaact ttttcaagtt atcaagttta taatataaca atattaaggt gaagcatatt 300
 aatttatatt ataagatata aaataatttt ttacataat tatacttata ctaatttagc 360
 cttattaaat tttagttttt tattttttaga atatttcctt tgt 403

<210> 688
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 688

```
acacatctat atagtaatta gatctataat tataaaaattt actcaattaa ataattatgt 60
aaatggtgca tattatcaag atataatagg tttaaattgt gctagagatt gtcggaatta 120
tactaattga aaagtcgatt actttttatt tttatccagg attaaaagta aagtttttcc 180
atagaatatt caaaaaactt ttgcctcaga ttaccottac aaaagacatt tgtaaacaat 240
atatcgtttc ttccctaatt tatatattaa tagatcgatt tataataatt aataaatgca 300
atattggatc gagaactaac agttatagaa tttttactaa gtttctgtta gtattttata 360
atgtatattt cttataaatt caaactgata gtatctatta ttttaataaaa gttgaaaaag 420
tgactaattt gcattgtgtg tggcatactc gcaggtgcaa aataaattta gtaaaatttc 480
aacacctggt tatatatcaa 500
```

<210> 689

<211> 450

<212> DNA

<213> Ctenocephalides felis

<400> 689

```
actcaatata aatagaagca ttattgttca aaattaattg cactgagtgt tcaaccgcgc 60
gtcgaatttc gctctccgtt ctgctgatgg acgctattgt ggcttataat tctcgtggct 120
ataataaatg attattatat agaaattcag aagagtgtc cgattcgatg cgcattattac 180
tctttgagac ggtccaacgc gaccctttta agtaatgcct ttcacaatag ggatgcatta 240
aactaattcg ggctgaataa aatattttta cagtttgga aaataaacta ctaaccgata 300
attatctaca cactatgaaa tatttaaaaa aactaaattt ttggcacttg taaaatgaat 360
gcataattgt tcatttagtg cttttttatg ctttaataatt ttgaaatcta ttagtaatga 420
catgacattg tgctttcaga caaattgctg 450
```

<210> 690

<211> 351

<212> DNA

<213> Ctenocephalides felis

<400> 690

```
acattgccct tgatgttgcc gatgttgtga ttgacgtgga atttgggggt cgacagaggg 60
tctattgggg gtatctccag gggtttgtaa ccgctcttga tagctggcaa gatacttttc 120
attgattcct ttatgcattc gttcaaattg gggctgtttc ttttgcaaat cttgaagaaa 180
tccggttaagg gtgcttcggg gtcgacgaga gctttcgctc ggcagagggc ggtcgtcgcc 240
aaaagcacia ccatcgccgt catttgtccc attgtaaata aataattatt atgaatagtt 300
tcacggcaaa tcgtaatctc aattagcaat acnatctgct tcctgggtgc t 351
```

<210> 691

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 691

```

acaaaaacct agataacata atttatcacg aataaattta ataaaatata aatataaata 60
aaacaatata atacaaatat ttaattaatg catttaatta tatttagtct tatttgtaat 120
gaaattagga aattttttatt atactctacg gaaaggtaat taccctatga gaaggttaaac 180
tctctgagtt ctctgaactt taccacacaa acttcatatc ttatgtttgt tcaaaaacta 240
ctatttcgca ataaaaatca ttttaaaaag aagccaaaaa cccaactcca attcgttggt 300
tcaaaggtgt cgaaattata gtaattttatt cgccgcgtgt ggcacaaaaac taagttttta 360
aaaaataaaa cagattcttc catataaaaa ttggtctgga taatgacggg cgccgatctt 420
cctcttggtg ataaaatctt ggtgaacttt tgccaagaaa gtcaataaaa cgccaattnt 480
tttcattcgt atcattatta                                     500

```

<210> 692

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 692

```

acacaatggc aagtaattct tatacataat cagttttcat atatttaca tttcgtatat 60
tgatagttat agatatttta gttaattcaa tccttttcag ttaaaaatca aatgaactag 120
tttatttttag atcacatatt ttacaatatc acattcattt ttttatgttt ttcaaaaacta 180
cactcataaa attataaaca ttcataaaat tgctagaata aaaattgtta aatatgtaga 240
taaatcctcg tttctaattt ttacatcttg attaaaataa aaatagttag ttcacaatta 300
tttgtaaatg gaattaaaat aattctaata acagaataaa aacttttagg taatataagt 360
cagtttaca taaaagttaa aatgttatgt tgctatatta tattatatat attacatcgc 420
ataccataac tacattttaa cacaaagtat tataataact agtattaatg aatactaaag 480
tgnattatgc ataatatatt                                     500

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<210> 693

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 693

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aatctttggt tttcatggta atatatctag gtgaaaattn nnngcaactt ttagacaatt 60
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taataattac acaaaatagc gtattgagtc ttcttctgat ataactttcc aaggactaca 180
atattacatc ctaggatatg ataaaaatca gtgatgataa aatgggtggt tgatcaggaa 240
tcatagtttt gttttacatt ttcaagacat taagggtggg gctagaatag taataataat 300
ccatagcaga aaataaaaaat tatacaaatt tcttttagtt cttcttatga gtcttcaa 360
agaaaccaat ttatcaaaac caaatttttc aattttcgtg ttacacacc gtatgagaag 420
tgacggtaag tggctcctcag gaagacgtnc agaagtagtg gagctgtagc tggatctgta 480
gctcctgggc atctcnagtc                                     500

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<210> 694

<211> 434

<212> DNA

<213> Ctenocephalides felis

<400> 694

tgaataanta ctagtnaaac ttannttttc gttgttaccg aataaatacc tggngngagna 60
nntanngtaa ttacagactc ctttttatat aaaaaattaa aaatttagtc gaaatttatt 120
tatnttgtga natctatact tattttatgn cnntttttaa tatttatntt tagaacgttt 180
gcataattat agttaccann ttggaattac ttataccaga antaanttaa aaaaaacan 240
ttcagtgcct tatgcaagtg gnttataagg gngtttatgt aaacagnaaa atatgtgcaa 300
tatatcaaac taattatctg gcgtagagaa ntgaacagtn ttctgggcaa naattagtna 360
acntttgggt tgatatataa accaatagag gnttatcttt ttgtgtcata taggtggaga 420
ctcgcttgaa aagt 434

<210> 695

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 695

tcttgaatta taagtgatca ttatganttt tattattgtc aatatttggg gggataaaat 60
tatgattaac catatgattt agaattttat tcctcggcgt atataaatgt atatttgngt 120
aaatnttgaa ttctaattta agaacagggt aatantttta ttttattgtn ttcattaaaa 180
ttcctnaat tccgtataag catctttacg actttattca gcgattnttc ctattttttt 240
tatcagctta taaatgtcan ttcttttgaa aagtttatat gattactttg aagtgtatta 300
tcaatatttt cttaaatacat caatttttct tttgaaaatc agggctggcg gaaggcgng 360
tctgctaggt ctgcaaagcc ttagggcatt atataaatat gttgacgagt gcatataaat 420
atgtctgaaa aaaatcactc tgcgtattaa ttaatatgga ttaaataact taataatttt 480
taacttccga tggnnagtta 500

<210> 696

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 696

tantttcttat acataattag ttttcatata ttacanttt cgnatggngg gnggttatag 60
atatttttagt tnatncaatc ctttcagnta aaaatcaaat gaactanttt attttanac 120
acatatttta caatatcaca ttcntttctt tatgtttttc aaaactacac tcataaaatt 180
ataaacattc ataaaattgc tagaataaaa attgttaaatt atgtagataa atcctcgttt 240
ctaattttta catcttgatt aaaataaaaa tagtttagttc acanttattt gtnaatggaa 300
ttaaaatant tctantaaca gaataaaaaac tttaggctaa tataagtcag cttacaataa 360
aagttaaaat gttatgttgc tatattatat tatatatatt acatcgcata ccataactac 420
atttaaacac aaagtatata atacttagta ttaatgaata ctaaagngta ttatgcataa 480
tatattttta atataaaaat 500

<210> 697
 <211> 454
 <212> DNA
 <213> Ctenocephalides felis

<400> 697
 acataattct taaataataa aatgtgtttt ntntttttaa ccaanaaaaa ttttgggggg 60
 gntttntata aaaaaaatna cacttatttt ttatttatta tttcaataat taattaatta 120
 ataataatacc aataatattt atattttatc agaaattaaa taatttaatt aaatattgac 180
 tataatctag atgtnataaa ncaaaattac nctttacaaa gtcaattntt taaaattgaa 240
 aaattttnat ttcctagtaa taaaatataa aatcgtagaa ataaatgntt gatagtggat 300
 catattggat aatatatgct cattatattt tattatatat gtgggctctt taggcaaatt 360
 aaaattctgc ggcaaaaanca tattcatcca gcaattcgcg agtttagaac ataattattag 420
 aaattatata taacattttt aattcattca ttgt 454

<210> 698
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 698
 ggggngtgac aatggngtgt aaanaanagc atgtatatan agtnactaa ttngatctat 60
 agngagnggg gnggngaaat ntactgggna gtcgccttan aacgtngnga ctgggaaaaa 120
 ttctggnggt acncaattta anagcnntgg agcanaattn nacttttnat cagcntgggn 180
 aaatancngn anaggtncgg nattnatag nnccttccca atanntngcg nanatnttga 240
 ttggtgaaat gngatgtgtn tntgtagcag gtcattaag cagcngann nngtngtgg 300
 nattnntnna ntnggatact cnttatactt tgaaaanant ccttanagca tnggtnttaa 360
 nannnttctt tnattatntt tnaaggtnaa ggnttaaaaa gcttannnnc gtnatgttt 420
 naaaanantt tgntttcntt annngagant aatttatgag tnttatnngn tntagatnt 480
 nttaaanann tnaattatgg 500

<210> 699
 <211> 436
 <212> DNA
 <213> Ctenocephalides felis

<400> 699
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 ttcgttttaa atggatagtt atttttgtta ctcaaatgtt ttatggagaa ttnctttttt 120
 tggatagtgc gctttatcaa tggcatattg gaaaaaatt taaaatcact tatgtttaga 180
 gaagaactna gaaanaaaaa tattatgtta aacagcttct ctgaagtggg atataaattt 240
 ttcaaaagca tngctgnnta ttgaaacaga agtatcctat gactatgttg caagggattc 300
 agttaattaa actcaggtca aggaatacga gagtctgaag atcaatttng aaaaattggg 360
 caaaataaaa atatttcaaa agctagtaga aacatctgga agataataga aacgagctga 420
 ataagcactg catagt 436

09991936 112101

<210> 700
 <211> 225
 <212> DNA
 <213> Ctenocephalides felis

<400> 700
 cttatttact gcagcatacc atacgttgaa gatttatatt attagtnttg ccaaaatttt 60
 gttagaagaa aacatttttag tatcaggctc atccctacac tccttcaacc aattctttac 120
 gaacattaaa tccccaccc catccaatct caatactaata gtagtatatt ctgnttcttg 180
 taatgactgt gcttttcaat atattggaca aacctcccaa tatgt 225

<210> 701
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 701
 ngctaaatgt gcaaaaatga cagagagaac tangctgtcc gatttgaatg attcaaagaa 60
 gggggggggc ttgtttcaac aaaatanttg ctcttggaac aaaaattaaa ntttttattt 120
 tnaaaaaaaaa tttttntttg tatatcgaaa atanttcaga ttttaatttt gatttttggc 180
 taaagcnttt aaagctcact aatatacnnt ttttnatacc tttattcatt atattgtcaa 240
 tcaagactta taaagtctta taatacaaaa ctgcttgctt agataataat aagaacaata 300
 aaataaagta aacaaagcac gtnatangta gtagtantta agaaaccaa cgaaanttat 360
 aaantgaagt aaaaaatana aatataantg aaaaaagacg aatatacttt aaataaatan 420
 attataactt tgcgattaaa nttaaantant tcttatatat attaaacaat ggtacagtat 480
 ttatagtaat ctatttaaaa 500

<210> 702
 <211> 494
 <212> DNA
 <213> Ctenocephalides felis

<400> 702
 catggcatcg tgccctaata caaattgctg gaacttcacg caccgtaatt aaaagggggg 60
 ngaaataaaa ataatacaata actgttttaa ataatttcag aaagatcatc ttctacatat 120
 ataaaaataa gtogggtttt ccttcctatc gaaataactc cagaacgcac gaaccgattt 180
 cgacaattta atatttcgct ggaaaggtaa caggctccgc aagggtttata gctaagaaaa 240
 ttagttgtgc atggcatcgt gctttaatgc aagctgctgg aactcccgca cagtaattaa 300
 aaattcgagt aataaaaata atcaataact gttttaaata atttcagaaa gattatcttc 360
 tacatatata aaaaataagtc gggttttcct tcctgacgaa ataactccag aacgcacgaa 420
 ccgatttcga canttttgta ttccgttgga aagggtctncg gctncgcagg cttatagcta 480
 agaaaattag ttgt 494

<210> 703

<211> 499
 <212> DNA
 <213> Ctenocephalides felis

<400> 703
 caataaagaa ttggatttan attatttaca aggtcatttt ctctattcng gngtttgtat 60
 gactccccgt aaacaagatc aagacctcct ccgcaggtat atcatgtatt gaagagaacg 120
 tcctcaacat tctcgcagca tcttttagttg agactagaga aaatgcaata tcagaaataa 180
 gacattttatt gtaattaaaa tttattaaaa tctatagcat acaaagtatt aaaattaaaa 240
 aagtttgacc agcaatggca tacacattac ataataaaat tgcgttaaaa ctgacaatca 300
 aattaaatca attattcatt agcggagatg aagaactcca ccttttttagg tttgaaaact 360
 tcaacacgaa atttgacgag accagtaaag aattcagact ggaaatttgt ttcagtcaaa 420
 cagattttgt agttggcagc attttcaatt tcgtctcatc atccaagaaa tctccatttt 480
 ggaagcacct gtgttgtaa 499

<210> 704
 <211> 376
 <212> DNA
 <213> Ctenocephalides felis

<400> 704
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 taatttttatt ccaaaagtat atacactgga gaatataatt tcaaaattat aattgtttat 120
 cctgcatagt aagtcctgac gagctcccaa aatatgacga ttaatatatt acttaaatta 180
 aatatacatc gngctgtcgg caaagttaag tacaaattac tcgaaaattt gttaagaaac 240
 atattttttt gtaattttat tttgaaagta cacacaatga aaaagataat atcaaaactg 300
 taattattta gtctaccggg gacgccctga agagctcctc aaaattcaca agtgcaatat 360
 aacataaatt aatagt 376

<210> 705
 <211> 118
 <212> DNA
 <213> Ctenocephalides felis

<400> 705
 ttctgtataa gtaatttggt tgtaataatg ttcagtgtta acgaacnggg tgagctgcat 60
 gagcaatgct ctacccaact gtaaaactct aaatgttggt aattcgaact acgactgt 118

<210> 706
 <211> 289
 <212> DNA
 <213> Ctenocephalides felis

<400> 706
 taaagnttag tttagattta aattcattta acttgnattt caatgntatt attattgcaa 60

aataaattct tcaataatgn anatcaacaa atttcctttg tgttacaaaa tttgnatgta 120
 ttttttaact ataataagtc ttcaatatgt ccaaagcagt atgttctaca atgnaagtaa 180
 tttaaaataa gtattggtgn aaaattaaaa taaatgaaat aattaaacaa taaatgcttt 240
 atttttaatt aggaaatcan atcaccagta tcatctctaa gaaaaatgt 289

<210> 707

<211> 202

<212> DNA

<213> Ctenocephalides felis

<400> 707

aaataatatg cgctcgaatt gaaagaaatg cccgcgctcg tccgggattt gaacccggga 60
 cctcccgac cataaccgga aatcatatcc ctaaaccaac ttttgattt gccacttacg 120
 tttaatatct aagccgaaat cataacccta gaccaacaag ccacgagttt tatccagtgc 180
 atgtttgtgt tggaaccaat gt 202

<210> 708

<211> 300

<212> DNA

<213> Ctenocephalides felis

<400> 708

ttggtatagc ctttccagaa ttactcatat actgngaaat acngnacngn tgtaaacttc 60
 ttgcaacaaa gcatatatgg aaatatgttt tctctttaa tgactcttta aattggcggt 120
 tgntgaacta tactttatct gctgntgca tactagtga ttttcaacta gttgggtcaa 180
 tgcccatcac tagttaaaat catttatgat attgaaaaag attaaaagtt gattatacta 240
 aattattata tagccctcgg ctattttcgt gaatatattag tgagtaaaag cagcaaaagt 300

<210> 709

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 709

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 gggnggtcac aatattttact tattaaataa ttntgcgcta tatctaaatg tatctttaa 120
 attaataatt tgcaaattag caataactat caatgagtag atctgctcat agtaagtagt 180
 atatatattt atatcgaatg ttagtgtaaa tgaccgtttt aaatttacag ttctagaata 240
 ttaaacgagc tttgtgaaca aggtgaaaag atcaaaataa catcactttt taaactgtaa 300
 cgttgacaat attatgttga aatgatcaaa ttacataaat gagtcagcaa aatttggtgc 360
 taatatattg ctcggatttt tttgaagaat ctagtntata tttggtatat atagatatat 420
 agatgtgncg tatacctata tgtgcgtgcg tgtgtgcaa attaacaata tatngccaa 480
 agatatgtat atgccagtct 500

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<210> 710
 <211> 425
 <212> DNA
 <213> Ctenocephalides felis

<400> 710
 accaaaatat ggttaattat tatatattaa atttttttta gttaaataagn ttttgatgc 60
 ggnggnaaac atgctttgtt nggaatgcna aaatagtga cacaagctt cattcngcaa 120
 acaaatagaa gttgtgtatt gacatatctt gatttcacac taccatttac ttaaagtgtc 180
 ataataatat ttgcaagata catagcgaaa aaaatcatta gctatagcac aattttcata 240
 agttgttaat tcatgttatt tttattagaa ttcaaatttt atcataataa cagcattaaa 300
 taaaataagc acaatgattt tatcatgtat accaaaatgt cgcttgaagg taatatctac 360
 atcttaaaact agaaaccctc attaaaaata taataattag atttagtatt tgttgaaata 420
 gtagt 425

<210> 711
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 711
 cttcgtttac caaaaaatcg ctaattttnt ttttacaac gtcaaaaaac tactcanggg 60
 gntcaaactt tcataaattt tcaaaactaa actacttgct gtaaggccgt aatatttcag 120
 taagttctat aagaccatga tatataaagc caaaaaagta tcatcggtt aaattttttt 180
 tcaacagtta attacaagaa aacaattaca tgaaatcttt aagcgctcat aacttttgaa 240
 cgatttatta taggatattg atgttcccag gtgaaatatt ctaaatacaa agatctttaa 300
 tccagtataa aaagttttta gataacctt atcgttcgag agatatacgc caaaaacggt 360
 ttcaaatttt taagtttgaa ttagtttaaac ggctatagct cgaaaaatat tcatgacgta 420
 tatgaatgaa atatgcgtat ttaaaatatg tatctgatgg tgcaaaaagt ttgtaatagc 480
 tctnccgttc cgnatatttt 500

<210> 712
 <211> 499
 <212> DNA
 <213> Ctenocephalides felis

<400> 712
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 nctgcacctc gcatgannnt cacttgaata ctcttgatga aagagtgaga aatagaaata 120
 atcttcttgc aaangttcac tngcatggag aaacctgaaa tgcagtttat agaaatatat 180
 tccacgcagt gaaaccantt gcacggacta ataaacgcaa cgntttcant tacgaccgca 240
 nttcacaanaa aaccggcgct taaaantata ctaactattt atatgcctng gaacgntctc 300
 gctttaagtg cgaancggca tttatcantt ggggcnctta aatgaaatct taatccagga 360
 taagggtcac taattacgca tggnaacaaa acagcaaatac ggtgacgagc ntaataantt 420
 aaaaaaaaac atnacaaccc ccggtatatg ttaancnaaa aatntanaaa agcctgaaan 480
 ttgggganaa attaaaacc 499

<210> 713
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 713
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 ggngnnagna ggngtggttag naataaacat tataatcaag gcgtnttgaa ttaaaagctc 120
 atattgntag aatgtannaa cgcgcnatac cttttctttt tttagacaaa aatttataac 180
 gtaatatant tatnttaaaa atgcaaaaaa tatttaaagc gaaaaataaa caactaactt 240
 catatacata tatgtatata taaggatctt gcnagggcaa aataataaag attctgcaat 300
 aacaagcata gcttctgttc aataaccgca ttataaatgc cnntttgnta tttattacgc 360
 natattagca aaaatcacta tgtgcgnaa nntttcttaa ataattaact ggcgngcttg 420
 cttaatatct ataatanntt taacatcaac aataatgnnt anttactnaa ganttctaaa 480
 acanttatta gaatattcgt 500

<210> 714
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 714
 acgaattaca tttttgttat gtgtagaaag gtgtcaaaca nttcatctct tgatcagaaa 60
 tannttttct ttctagtaaa tggatccaaa angngctaag aaagaagann ttcctgagat 120
 tataaattct ctgaaaaaaa natacnnttc cnttatttat ataataaaa ttatttagat 180
 atatgggatg acttctagaa aaaattaaag tggtcaggaa tggngncatt gaaagaaatc 240
 ttncatcgg tatgntaatt acatcaaaga ttaaacataa ctncctaact aattcatact 300
 cctatcaaaa tatcttttag ggatcgatat actggctctt ttctacngac atggttatct 360
 tggaaattga tggaagtaaa ganatggatc taaataatat gggcctcggc cgggacaccc 420
 taacognatc tgagatatca atacctggcg gcggtcgagc atgcattana nggnccaatc 480
 gcctatagng ggcnataca 500

<210> 715
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 715
 actcatttta tatattctcg gngggataaa aatataatta attantgtng gccttctacg 60
 ggngtgcttt tagaaaaacc aaaatctggt gggggggctt tttgaccnc cnttttgagg 120
 ctttaaattt aattctttat tattatggaa aanatagggt gttnaaatca tgggnttaga 180
 caacatcggc ggttcattta agtatattat acattttggn ccatcgcaen gatncagtga 240
 ttaaaaaata cagtcacgct ttacaattaa atatcgcgag gtcgctaaaa ataaagccaa 300
 caaagctcta cgtgaatgaa aagncgggac ctgagaagcc gcntttaagc ttggaagcgc 360

gttcgaaaga tattgggtgg gaatganatt gattancctt cngnaaanat ctctttttatt 360
gacagnttct tgngaataac tggcaaaaaa acncttgacg acnttatgaa actcctttcg 420
aananatatt ataggctcaa tggatatcta aaatanaggg cctcacanac gggttgcttaa 480
aanttataaa ggggaaaant 500

<210> 719

<211> 353

<212> DNA

<213> Ctenocephalides felis

<400> 719

aaacagaaaa atatcaaacc tttcatntnt ttcaatacat anttatctac aagngnnngg 60
gggngnaggg nngngactac tacaatacca tcaacttttg cttttaattt tattccaant 120
acatactang agcngncttc nncgnctcaa tgcctcattg aatccttcgc acaaagttaa 180
atcagatcgn ccttggtgcg attgnaagaa ttgcatgatt ncccatgcgc aagggccagt 240
agagttcttg gccttggtaa gcagnacttg cgnangcant ngntgagggg cttgggcagg 300
tgctgcttca ctggaggaac caccagagaa gaaccagtta taccgnttc tac 353

<210> 720

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 720

aaaaagttca gaacttccaa aatTTTTtNa aataaacctt tcttcaaaan gcnggggggg 60
gaagaaaagt aangggggnc tcaaaaatct anonttttC gaactaatan ttgcagaaga 120
ttcggcagca ttcacggccc ngcccncanc ctttcagacc aaaactgngt tcattactaa 180
aacantnatg nancttcacc atgttcaatt attctgaaaa tanttatgca ataaagaact 240
gcanttcate cagattctat tacaatcagc tgctcctcgt ggaatctcaa taccataann 300
cttatngggc agaatgaagc gcgctcgan ataatgaan ttacggccgg tatttacaan 360
tttaactcga cantaattaa aacggattca tgnccgaga aacttggaat cttacataata 420
aanagcggnn ctgngtttat ttcgactcct aagnaacntc attgcgctaa ccctagagag 480
anatttatgg tgactnaana 500

<210> 721

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 721

actttgaaaa tttccaactt atttcatttc ttgnngcata gttatcaaca gagagacttt 60
ctgggagaaa gagccgctcg gggcacgcag ctgttttcgc tgcttgatat tttctacatt 120
gtttgagtct cttatttcat taacaagcga gttcttcaaa ggaaattttc gcagcttgca 180
caatttatat atgtctcaac acacgacagt caataatctt cttgaaatta ttaacactat 240
tctatcaacc gaaaatatat atttatacat aatattatat gacatgatat aggaaaaaga 300

SECRET

<211> 500

<213> Ctenocephalides felis

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gtcagagtgat	ttcagataca	atacactttt	gattgatttc	caatagaatc	cagggtcgaac	120
atthttgcaa	acaccattca	atagaatttt	gaattcggtt	gccatcgagc	caataatgag	180
ttcgcgtgatt	ttgttttaat	tatcgacgtt	attgaggaat	gttaagactg	ttgacaaatg	240
tgattagaat	cttaactgat	atatagttaa	actatatcga	atattcatac	tatttg tata	300
gacagtgatg	tgctgacacc	caggattttca	cgaatttttaa	ttgtaaattt	aagttgccaa	360
atatgcattt	ttgtgggtaa	ttttgagggt	aattttattgc	ttttgtttct	atgcagagac	420
aagaataaaa	tgattcaaag	cgtaaacacc	aataaaatgc	tactatatct	ttacttg gat	480
attcttatttt	ctattattgc					500

<211> 151

<213> Ctenocephalides felis

acaagtgtta ataagagcac gtttgatgga tcnactgggt aatagaaatg ttcgtgaaaa .60
tgtaaatgtt tactaataaa tatatatattt actaatgcaa aacaaaatta tactaataaa 120
aaaataaactt atgtatcact tgatataaag t 151

<211> 167

<213> Ctenocephalides felis

acgcattgtc taaattgtaa taaaaatgtt nttaataga attgttttct tagacagaca 60
ttttaaatgt atttcgaaaa tattactgtc acatgtgaat ctgtgaaatg tgtcggtttc 120
attgccaaag tcacatgtaa tgtttgatac atttacagat tcctagt 167

<211> 381

294

<213> Ctenocephalides felis

<400> 725

acaaccgttg gcaaatatca acttccacat catnaccaa tgttttatcc caatcaggcg 60
atgaatccaa atgattgaat tcattacact gttcaggctg agtgtaaaat aatgatgttg 120
gactttgagg cggagtaaaa tgatttagtt ccactttatc ataaatgcgt tcaaattctc 180
gtaaaagact ctcaagtgtct tggtgaataa aatctgtggt atcaaatgcg tgaggaaaatt 240
tggtttctcc gcttagagtt ttgttcatac cagttgtagt agacaaatcc tccagcagag 300
gcaaattccac tttctcctcc agccattgag aaaatgcttc attagtaaag ttatcttcca 360
gcaagcacga atcagcaaag t 381

<210> 726

<211> 424

<212> DNA

<213> Ctenocephalides felis

<400> 726

acaaaattta tattataatt caaataaatt taaaaaaata ataatctgaa cttttatatg 60
agcaatccca tggttgaatt atgttgcaac tatttgaaag aaggcagcta aattaagtta 120
agttaattga agtttggaat tacgttgaat ataattttta taccttttaa gacaaaacgg 180
aaactttcac atgaaacatg ctaaactcgag taaaggactt gtaagtcctc tgagaagtgc 240
aagcagcctt tacaataaac taccagacga actaaaaaca atgacagacc taaacagttt 300
caaaattaaa ttgaaaaatt acataagaga caaatgaaac aaatgagtta aaatccctat 360
tttaaactta tattantnt gntntgtaaa atattaatca caattnagta tnagttgtat 420
gntg 424

<210> 727

<211> 488

<212> DNA

<213> Ctenocephalides felis

<400> 727

acatacatat acatacacag acatccattt ttntgatgta tgccaaaatg ttcagaaacc 60
ttcaaaaaca aaaaagatcc tgaaaaatta tgaggaaaat cacacccaac aaattgatct 120
tttttatgat ttcaaaaatt aataatacaa tattaaatta tacactacct aacttatgtt 180
ttaattaagt atattttgtt ataggtaggt aatagttttc gatctttgac ctaaaataat 240
ttttgaatat ataaaaatta tagaacatat gtgtaaatct tttaaaattt tgaagacttt 300
tttaataaat cgcaaaaaag tggatattaa atttagttta taatctttta gttcttggtc 360
gaatgttaaa ttaaattttg gcaaagttaa gtttccaagt catttttatt atttattaat 420
gaaacaatat tagctttttt ggtaagaaaa tcggcacttt ttggtaggtc aacatttatt 480
cttgtgag 488

<210> 728

<211> 290

<212> DNA

<213> Ctenocephalides felis

<400> 728

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acttttcatg atttaattgt atattacctt antaactaat ataaatatat ttattagggc 60
gggtcaatth aaaggctact taggcacttg tgattttcgg attctaggga tcaaataag 120
atactttgct gaagaaacca cacctctaaa atgaattctg atgtccggtg cattgactca 180
ataagggttt aattttgaaa aacctctcag ggggggtccc agggtttgaa ccagaggcat 240
gagttgattg gccttctaaa gttagtcata catttggaag caattgggggt 290
```

<210> 729

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 729

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accgaactat acataatcca agaataacac anagaaaaat ggcagaaatt ttccaagtca 60
tngttcaaac tgtttccatt tacaacaat ttgaagatat atcaaaataa ggttgacaat 120
atctgacaat gagtgccatt atctgttttt tattgatttt ttgcagtgtg ttatttctga 180
tcaaagggtta aaaaaagttt atcttgagaa tcttggtctt ataactagcac gttgtagaca 240
aagtaaatat ttcattttta ttttaacaata ttaaacctgt gagataagcc aattaaaaaac 300
tgctcatata gataatttat gatttcacgt tttacaagt ttaaccaatc tattcgaaat 360
caataatacc tttaaatgta aaaaaatata aaacaaagaa atgtaactgg cttgatttat 420
ttgctaaaaa cagctgataa acggcaaaat tcttcgaatt tgcacttgat ctatataaaa 480
atatttcggt tttagcaata 500
```

<210> 730

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 730

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acttcaagta taaccacacg attcacttcc ctntgtgcac tttggcataa atatccccta 60
aaatatgtaa aacaggaacc agggcaccgt gataatgtaa tcaaacgccg gaaaatgatt 120
tttgatcgta tccatacctt tatagcgaag tcgggaatcc ttgtgattat attttcctaa 180
aaaaggaaag aagttctcgc atactgaaaa gaaaagtttt gtctgggtgt cggatttcga 240
actttcaaac ttattcattc ggttaccgcg accgcgaatg aaatattatg atttttcttg 300
ctcttggtcg gaataagata gattgacttc gaatattacc ggaatataag ctggctgcga 360
gtaaattggt tggatttggt gcttttantt atcgataaaa tatgngcttn ttngagnatn 420
gttggaanct cnngggtant nttcaggtcc catggntacc nttagnctaa ttattaattt 480
ngtagnncca ccaaaccatn 500
```

<210> 731

<211> 256

<212> DNA

<213> Ctenocephalides felis

<400> 731

attaaagtaa attaaatata aatgagaaat tgtccttatt aaattattca ctatTTTTTTa 60
aatgnncttt ggacattctt ttataaaaaat tttaacaccg tttagttcta gtattctaata 120
gtcagagaaa gtaaacaagc cgagtgtctt ggatttttat ctttttagtg catcttgatg 180
taagttagct tcatctttta tctgtataat aaatgataca ctactgaaat atatttctat 240
gtaattattt atatgt 256

<210> 732

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 732

acaacctggg ctgtgaaagg tgaacttgaa gaacgtgatg gtgaaaagta tatgggttatt 60
aaggangctg atatgtcgcc agttccttca aatgttaata tttatgccac aaatattttc 120
cctgataaag cagtcaatga cgctttccta gtgaccatga atcaaaaactg gcgctcctta 180
tacaaagagg cgctcccaat attgagcacc ctctggggac cccaatcaa aacaggaatg 240
aactacgttt ttgaaaaaat acccttccga cgtctgttcc cagaatccta aataaaaaact 300
gatagtgcga actgaatgct tagaaacaaa tatgtgattg taatgatagt tattagaaca 360
tgatataata tgtagaata gtggttaata tattatgagt atataaattt ttacagatgt 420
taatataagt atatgttaat gttaacaatt taatataaat tttgtattta tttttatttt 480
gttatatacg tgtaaaaatc 500

<210> 733

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 733

cgatcaggcg tatttcacat agaaaagcaa gaaagaatgt tatgataact gcatcattga 60
agattcttct tattataatt ttatttgaat atttttgatg caatattgta ttaatgcat 120
tgtgatacct ttttacgtag aataattatg tgttgtctta atgtcattga tttaaaaagt 180
aaaaatcact gtcttatttt aattagtttg attctactga tgacaaaatt actctcctct 240
gctaaaattt tatattactc tctgtgatt tttatattac tacttctatt ttatgattta 300
atttttaattt ggtttttaa tagaaaagca acgacttagc ccaaaaatgg tctccactga 360
cgaacgaaat tactcttctg caaatacaag tattgttaac actattttta ttctgagatt 420
attttttaaatt ttgaatttaa ggtgataatg aactataccg acaagtttca gattcagatt 480
tcagttacaa tagaactcta 500

<210> 734

<211> 251

<212> DNA

<213> Ctenocephalides felis

<400> 734

actcttccca cagtgagaga aaaagtttaa gttctattca tcggtcgtct aaggaaacca 60
ctcatcagca gattgaaact caatctaattg cacgaaataa acaccaagta tcatcatcta 120
acgctaccta cggttattgaa cgcccgacga aaaccggttcg acgcgataat ctgttaactg 180
gcggtgaatt ttatggtcaa aaagattcaa ggtatggtaa tttttctaatt tgtgaacaaa 240
gtctaagaag t 251

<210> 735

<211> 229

<212> DNA

<213> Ctenocephalides felis

<400> 735

accagtgtta tggtatggtt atgttatacc gtttaaaaga cttcaatttc caatatagtg 60
ggagaattga gactcatcat ttataaaagc aattctgcat ttagcatccc ttatattata 120
aatatatatg ttttttggtg taaagagtaa tttaaaaaac aataatcaat attttttaggt 180
aaacgataaa tattagtata ttacattata ttaaaaaaat gtagagggt 229

<210> 736

<211> 333

<212> DNA

<213> Ctenocephalides felis

<400> 736

acatacgagt atactaataa aatagatttt agaactaata gaatcttatt gcgatatata 60
tgtgtgattt tcattataat gcataaactt tggtataaac gagcatagtc atttagatag 120
tattcgtcat ataatacaat ttcttctgaa aattgtctta agcgattcct ccccttaaca 180
agcgaaagtg ctcgaacgaa attactactt caaaacaaat ttaaaagata aggcatatag 240
tcgcagaagt tcgacaatga aaggtagatg aaatagaaat gatataggga aattaataaa 300
atcattaagt aatcttttaa gggtagacatt tgt 333

<210> 737

<211> 197

<212> DNA

<213> Ctenocephalides felis

<400> 737

acttctcaca tgcaaagcga gcgctctacc aatagagcta cgcccccgac aagtgcacac 60
attttattcc aagattctac gggttttata cttaacaatc actcacatta acatcacgaa 120
gacatgaaaa agtaagattt ggaagttacc aagatataaa atagtaatat ttggaagcac 180
cgggtagatcga tccccggt 197

<210> 738

<211> 354

<212> DNA

<213> Ctenocephalides felis

<400> 738

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acagaccttg agatacgggg gcaattcttc ggcttgaata atactgaaaa acgtcacaaa 60
cgttaaaatc actacaatat tcgtgatcgc cataacgatg ttgtttctgg atgtgtctgg 120
aagtcaaagt gogtgatttg aatttttgtt gcgattttgg ttctgtatcc ttagataaaa 180
tctgcgccct tgaccgtaat gccaaattca agatgataaa ggacaaagat gtaagtcgaa 240
attatcactt ctagagcact tgacatccag ataaacaatg acaggcctgg aaagaatcgc 300
ggtttactta tatgagaagg atgcgtggct gatgtgtcac cttgtccttg gttg      354
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<210> 739

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 739

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actcttgaaa gtaatgataa agtatcagtg agaaaaataa aaacacagca atcaatatta 60
agttacaagt gcaaattgaa gcctgaaatt agctgaccag tattgaaaat agggctcata 120
attttatgtc aagtcagtta agagaacaca taatctatta aataaaaataa aattcaaaat 180
aaagggttaa ttccaccctt cttttaacac tgctaattgtt agtttgggat cgactaatcc 240
acaacaaaag tttatgagta gcaaaaattg ccttttgata tttcacgaag aaaacatatc 300
taataataat tgtgcgtata gtttctaaag ctaaaatacca tattctgtaa tcatgtatgt 360
aatatataaa aatattgttt tttaaaaacc attttttttt aattttgaat tcgaacgatc 420
tatataatca tagataaaca agtataaata ttggtgtttt ttcagaattt tatatttgcc 480
ccacggtcga cgctagcgcc      500
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<210> 740

<211> 293

<212> DNA

<213> Ctenocephalides felis

<400> 740

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accaatattt ttactcaaac ccatgaatga aatcaaagaa attttcaagg acaaagaatc 60
tgacatacga agatcaatca gcccaaattc acaaactata gaaagttaat tatacaataa 120
tcaaaattta aaaaaaatta taggtataat tgaaacatgt gtcacactt atgatcgtta 180
agcacaatcg accaaagaaa ttatgtgtaa tttgtattta aactaaactg tatttaatat 240
atgttgtaat tacgaaactt attatacttt ctagtcaaatt ctaaactatgt tgt      293
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<210> 741

<211> 124

<212> DNA

<213> Ctenocephalides felis

<400> 741

actggtggag ctttcgtttt ggtcttgttt ttactttttt ttataatatc atcgaaagcg 60
 ctggacgctc cattctctta aaaactcaaa aactaaattg ccctttttgc tctttttccc 120
 ccgt 124

<210> 742
 <211> 278
 <212> DNA
 <213> Ctenocephalides felis

<400> 742
 accagatcta agttattttac agtgtaatct ctgtaaaaaa tgcacccatg aagtttatat 60
 cttgaatgta agttgaataa tgtagctatt atttgtaaaa tcccttttaa attaaaaata 120
 agacttggtt ttccatgtct tttatcaaaa atgtttcaat attgataaaa ataatgttaa 180
 ataatcagag tcatataaaa tgagtttcta gttttcttct taagatcttg aagggtttta 240
 taaaattttt aaaaaattat gcgcttttta atctgtgt 278

<210> 743
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 743
 accatcactc catgagttcg acaaccaact agaaaagacc catcaaccaa ttgaaaataa 60
 attctaacaa ataaaaaaat attaatattat aaataaaata ttacctgccg tttttccata 120
 ggctaaactt atttcgttta aaaaatcttg cactgttttc ttaacaccat cacttgtaaa 180
 aggtgttatg agcctttgca gatatgagcc atcctaaaaa taagatcatt tatttaacaa 240
 attttattta gggagcattc tagtctagga gtcaattttc aactttctga aggagttgtt 300
 tgttttctcg aaaaaatccg atttgccaat tttatttttt ctcaacgttt caagtcattc 360
 tgaatcaatt gagaccaaatt ttgaaaaaat atgtgtatgt tttcatgtat gtgagccgat 420
 ttttcgtttc gttttctcaa aaacggttga accgatttta aactagtggg gcatggcatc 480
 ggccttatgg caaattgctt 500

<210> 744
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 744
 accagtntgt gagatnaata aactctagcg tntttcgaga atatnngcta tgatctttgn 60
 ggggtaatnn actngtttaa taatnnctta tgcattacaa atgttaaaat gaaattatta 120
 tgtntattta ataagataca tanaagcaat ttatcttana aattttataa ctantctact 180
 aaatactgaa atatgaattt cctantctta agattttact aaatcactga tntctgaatt 240
 gaaatattcg ctgaaaagtn attataatgg acattttcac gtancaaang tatttaatca 300
 gtaattcttg aacattctca tttngcgtat atatttcac tataatantt aaaaaaaat 360
 atttacacat gccataaaat gaatgctcca atantcattt ttatatcncc tatntaattc 420

ntgtgtaact ttatggccct tcatttgtat tatttttttaa catgcaattt naaatcataa 480
nacttgtgtt nataattnat 500

<210> 745
<211> 464
<212> DNA
<213> Ctenocephalides felis

<400> 745
acattattgt atgaaaagca aatttatttt tgaactgttt gagttgatcc acagatttca 60
ataaaacttt gtaatcaa ataaattagtc agcaaaactta gcaattaaaa aattaaaata 120
aataaattta ttaatactaa attttatgaa atttcacata atttttgga tttatataat 180
gtggtatatt catatgaaat gattaacaga catgaccaac gattatttga tcacagaaaa 240
gcccagttta gaatttcatt tatggacaat taaaaaagt tttttttaat tatttatctg 300
ttatttattt taagattagt aatgatgaat gcaatcattt gaaattaata ttctttatat 360
tactaataag agataactta tatgctcata caaaacaatt tatctgttta acattttatt 420
caaaaaacgt aattaatgta aaatttttaa caaattgaga cttg 464

<210> 746
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 746
acagttgacg ttaatgaaat acctgcatat gaaaaaatga tccagctatt gtaggtaata 60
ttacattagg taaaaaacta gacaatttac caaagggttct caactttaac ttctgtctgt 120
aatgattatt caaataaaaa cctgcaaggc cacaacaaaa tcctgaaact gctgcaccgt 180
atcgagagg taatctggaa aatataattt gatgttgaac atcatatcat ttattagcat 240
tagatattat cattacactt ttgactgttc ttcccaattc catattaact tccactgata 300
ttggagagct tcgtcctcag ttagtcgaat agcatctttt ggtgggttcac ctttagacct 360
tactaatgcc attatattat atgaaattta ctgcttttatt cataaatcat ttgtgatttt 420
acattagttt cccagttaaa agttaagcaa acaaatatat ttataccata agttttatgg 480
tactactttc aattttgata 500

<210> 747
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 747
actttttaa tttttgttat ctaatttttc acattgtaat tcatgttgcc tgagtctctt 60
ttctaagttc tggcaggctt ggccaatata agagcaatta caatccaaac aatttacttt 120
ataaactata tctttctttt ttgttaattg ggtttcatct ttaatttttg aatataaaaa 180
ttttaattgt ttttaattgg aaaaagtaac acgaatattg tgttttttga aaagtctttt 240
tgataattgg ttaaaattat tgtcaagata tgggaaatta atgaaaaaag ttttttcagg 300

aacacttggtt ttgccaggct cttccggttt cttatcaaaa ggttcaagta attttgcgac 360
tctatatttta ataattggac aaattaactt atatggaaaa ttattgcaa gtaggatcgt 420
tttaactaat tttatgtttg tatcataaaa cagaggatca gataataaaa tagcgtgatc 480
tcaagattag aatggtagaa 500

<210> 748

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 748

actggttggtg attgcttgaa tcgagaagtt aagaaaagca acttttgtat gaatttcagg 60
actggttctc ccgtcagcag ctggtcatgc tggctcctgtt catcaacatc tcgctagcca 120
taatgttctt caagttgctg acgtagcggc ggcctatcca caacggccct ttgtggccgc 180
catgatcaca ggcataggtt cattacagtc gtaagggaat aaatcaaata gactttatta 240
acgaccagca catgtgacgc acagccgcgg cactgttggc aataatataa tcacaacaaa 300
aaataaatgc aagaaaatca caaaaaagat tctagaatcg atcgaattct tcaaatcgga 360
agaaacgaat tcgccacgaa accgcgtgac tttggttttt catttttttg gcacgcaatg 420
gctgaaaggt atcggatgcg tccagataaa tttgtcagtg ggcgttttca gtttctagtc 480
aatcgccctgc aggaaaaagct 500

<210> 749

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 749

acacccaggt ttgaaccggg gatcactaga tctgcagtcg aatattctac cattaaatta 60
tgtccccttg atcggtgaca ctcggaat agcaaatact ggcaccacat cacatttact 120
cagcaaatag ttaaaaaatt tgtaatactc ttaaagcaaa tagcaaacgg tagcggtaaa 180
tcaaattata tcagctacca atgtttttta taaattcaaa gtctcattta ctctacaaac 240
atcgттаата gcgaaccctt gggtttgaac cgggttaata gtgcacacgc gggattgaac 300
cggggacctc tcgatctgca gtcggatgct ctaacactga gctatgtcct cacaatgtgt 360
gttactcagc acatagcaaa tacctacgcc acaccacatt ttctcagcaa gtagcgaaaa 420
ttcagcaata atcttaaagc aattagcaaa cggcagcggg atatcaatgg caagttgacg 480
ttatttacac tgatttcagt 500

<210> 750

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 750

acacggcttt gtagtagtcg taaaagaatt cggggtcgaa gcgacagaag ttcccttcat 60
tggtccccgt aattttctcaa aacgcccttt tcctatctct cctgtatact ttttgaatgc 120

09994936-1101

gtgcagcagc agcaggggtcg aagggttattt ctgcattcct cctacggcgt cgtctctgat 180
 tggattggg tctgcatgtg cgactagtct cgttccgagt ttcaacgttt tctttcggct 240
 tgattgattt ggtaggtct tcatctctt tcggccaggt gtattaatag cctcaattct 300
 ccggcaggac ttgacctgga attttgtcag ttttgagca agcagtgaag gcgtagggat 360
 agttcttttg attgttgttt gttcgtgcac gtcttctcct cgcgatggag tcttgcttgg 420
 ccggaagtgt gtttcttctg tatggttctt aaatcgcgca ggcgttctgc aatttccctc 480
 tcatttcatt cacattcaac 500

<210> 751

<211> 423

<212> DNA

<213> Ctenocephalides felis

<400> 751

acgtatttca gaccgttcaa tccggggcgtt gtctcgtctt acagcaaagt aatgagcttc 60
 tgtccaatt tgcattacca taatggtatt catittttaa atcggaaaga agaattattca 120
 agaatccttc attgtatatg caaacaacaa taaatgttgc tatttcaatt acccgagatc 180
 gggaatgaat atgtttcggc gcgaaaatcc aaatcaacga gtttagagac tcattattgt 240
 tctgagtttc tgagcctaaa catcgaatta ataatttatt tgacgataaa ctgtcataaa 300
 ttggtctaata gacttcctaa tgccatttgt tctattagac cttgcaaaac cagtttttgg 360
 agaccgcgtc agtaaagtgc ctatatcttt gaagataatt caaattttca aaaatcttct 420
 cgt 423

<210> 752

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 752

acttatatat ctatttaagc acggaactta tatacgactg aaattcgagt tcaaataga 60
 atctcgtctt acatatttat atttatttaa ataattaata tgtttcagtg aaatgtttt 120
 gatTTTTtct tagttgtgtg aacacgaaaa ttttaaattt tatgctttat tgtgtgtaga 180
 tgctctgtca ctttcaattt gcaattttga agatttagaa atatagaaga tggaacatgg 240
 tttttgtagt tgggtggttt taaatataaa agcattgtta actttccgtt atagtaatga 300
 accaaaaatt aaaattgaaa atgtttgcat ttctagatgt tttgaagggt tctgaacatt 360
 ttggcacacc tcagaaaaaa ggatgtgtgt gtgtgttttg tatgtgaatt ttttccacg 420
 ttttcgggog catggatcaa cctattttaa tggtaaaaaa aattcgattc ctattgatag 480
 gacatgtgct gattcttttg 500

<210> 753

<211> 185

<212> DNA

<213> Ctenocephalides felis

<400> 753

actatagggga ataaataaat ggcagctttt tccttaggtc gccttttcaa cgtccggatt 60
 ttcattgtttc gaattataca tggcgctatg tatattccat actgcatgct cgcgagctct 120
 ttaataaaaat attagtgttg gcacgttgca caagattgga ttcgatttga cacagcggca 180
 gttgt 185

<210> 754

<211> 376

<212> DNA

<213> Ctenocephalides felis

<400> 754

actagatggt catgaggaat atttagcgta aaggctggtt cggatatatt tgaataatca 60
 tccatatcta tcatattagt atagtcggtg cattcgaaat ttatttcggg tgttttgtaa 120
 tctctcaatt gcgtcaggtc ttccacatta ttacggtaat ataagatttt tcttatagct 180
 gaatctcgta ttctcttttt attatcaaac aacattgcta ataaaatatt ttccgagtga 240
 gcatagtatg cgttttcttt agcaacattg ttcacaattt gtcttaaatt cgagtcctaaa 300
 tattgcgtcc agctaataaa tttataaaat aatatactac catacaccac agagttgtaa 360
 tatttaattgt taaagt 376

<210> 755

<211> 492

<212> DNA

<213> Ctenocephalides felis

<400> 755

acttttacta atattatgat cataagctcc actttcacga tcttctgcaa gggtnattcg 60
 actgcaaggg tcgaattaca taatgggaag agcttaggta aaaaaataaa tataagtctg 120
 ttacttatgt ataaagtata aaatttttat atttctatga agttaacaat ttagaaatta 180
 acttactttt tatgaaataa gctatttctt tcaattaaac taaggctttt tgtgcaatac 240
 ttttaataca atgttatttt ttttaatat tatgcagcca gttttgtaaa ttctcctaatt 300
 caaaagaaac cgctcttgct tatggatctc gaaaacttta attgagaaac taaaaactaa 360
 agaaactaaa atagtcttca aagtaattaa agaagttttt tggtttatga aaaagtttat 420
 aattatttat ttagaagttt atgaaaattc atataagcta ataatagaaag caaactaaat 480
 attattcgaa tg 492

<210> 756

<211> 360

<212> DNA

<213> Ctenocephalides felis

<400> 756

accaggtgag aaatggtcga cttacttaag aaagccttag agtaattagg ttaatgnata 60
 ccaattgaaa agtagcttac cataacattg ntgcattttt tgaaataata agcgcgtttt 120
 atttaatat gtttttttaa aagaaatgct aaaagcttta tgtaaggaat gtattgcaa 180
 aaaataccaa atgaaatcta gtcaacattt tattatatca aatcattcat aattaactta 240

gtattcagac atgacaattg agctttgatt attgtaagct tttctacagg ctaatatatt 300
 attttaatat aattatTTTT gttgcttgat tatcttattg gtgatggatt aagtttttgt 360

<210> 757

<211> 207

<212> DNA

<213> Ctenocephalides felis

<400> 757

acaaatgcaa cggaagtgcg ttacggccga actgtaagtc attcgctctc gatgaactca 60
 ttttaatacg ggtcgattgt gattagtcgt cgtgtatgtg aatagagatc tgcgtttgta 120
 tgcgtaccgg cgtcaacggt gtatgcatc cgatatcaac aagaaaatcg gcatggataa 180
 ataaatattt taaagttaca tcgtagt 207

<210> 758

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 758

caaaaattga aaaaaatata taaaaatggn tacatatatt tgaaattgtc tagaaangng 60
 taaaatatgt agaaatctaa aaatatctaa aaatccatag aagagtctac gtataaaaat 120
 cattctcacg aatacaattt acctgccaat gttgtcgtgt atcgtatatt tttctgatcc 180
 aatcttgaca aatgtttcaa gattgaggtc agatttttta taaaaaatca ttataaatta 240
 tttcttttcc acccctattt atgacatttt tgaagaactg aaaaaactca attttaaagc 300
 ttctatgttt tttatttttt gagaggagca aaggaaatc ttcattctcc taaaaaaaaa 360
 aacaataaaa ataatagaag tgatactctg caaaagaaga aaaactttgt tatgtgaaaa 420
 tgagattgca gtgcttgagg gcagctctga agacctttaa agactatgca acactttcaa 480
 acagtctaca atgttcta 500

<210> 759

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 759

acgtctattt agcaggctag agtctcgttc gttatcagaa ttaaccagac aaatcactcc 60
 accaactaag aacagccatg caccaccacc caccgaatca agaaagagct ctcaatctgt 120
 caatccttcc ggtgtctgga cctgggtgagg tttcccggtg tgagtcaaat taagccgcag 180
 gctccactcc ttgtagtgcc cttccgtaaa ttccctttaag tttcagcttt gcaaccatac 240
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 cttcggcgga tcgctagctg gcatcgttta tgggttagaac tagggcggtg tctgatcgcc 360
 ttogaacctc taactttcgt tcttgattga tgaaaacaca tttggcaaat gctttcgctt 420
 ctgtccgtct tgcgacgac caagaatttc acctctaacy tcgcaatacy aatgccccca 480
 gttgtcctat taatcattac 500

<210> 760
 <211> 338
 <212> DNA
 <213> Ctenocephalides felis

<400> 760
 acaatatttt ttcaaaaggg tcataaaagt gttcgtttta aataggtatt ttattatgtg 60
 tnatataact ttgataaaaat ttcaaacgcg tatttatata tcagcgtttg cgtatccacc 120
 ttaatttcaa tttaattttc atcggttgat tatactgaat ataataaaga ttttgtgttt 180
 attataattt aagtataaaa ttgtagacaa taatattcta cgattcaaaa atctataaca 240
 cataattgat ttaatttttag tttaaactat aaaaaagggg aaaaactcac gatttatatt 300
 tcttctagta agtgaagct tagatatgtt gcttttgt 338

<210> 761
 <211> 348
 <212> DNA
 <213> Ctenocephalides felis

<400> 761
 accaaaaatc ttattgcccc aaatttatnn tatctaacac tagcctattt ttatatattt 60
 ttacaaagaa aatgcgaaag ttatatatat tatagatatt tttacgtcta gtcgttttta 120
 tataaatact caatatatca tgaaataaat caaataaaaat ataattataa ttctatatat 180
 aatgaatcaa atttaattta atttttgtga cattttattgc tatttctgag atcgtgtcat 240
 aaatgatctc aaggaaattt tcgttggcga tttgccatga tttaaattaa tgttgcttaa 300
 atatttgcaa cgcattttcc ttataaatag tctaaattag aatcaagt 348

<210> 762
 <211> 372
 <212> DNA
 <213> Ctenocephalides felis

<400> 762
 accttctaca ttactaaaac ctctgatttt ttataaagta gatttattac aaatatttca 60
 accatcgaca accaaatata gtgtcaaaat cgatattagc ttttgaagat attctgaaag 120
 taaacagcga ttccacgtat tttttattag tttcggaag atttttattt ggctataaaa 180
 gtgttttgat tgctcgagaa caagatgtta tctcttcaca acaatcttta cagataaaca 240
 gataaactga gtcttcgatt aatggcagta ttgaaatgag gttttatata ataattagac 300
 acgaaggcag gtccagcagt ctgagcatca gtttcgtcta tgattgcaag tatatatagg 360
 gtaaggcgag gt 372

<210> 763
 <211> 500
 <212> DNA

<213> Ctenocephalides felis

<400> 763

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acggagtgta aaatattggt gaagtatttt gaaatttatt aatttattcg aaaaggngat 60
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gtccggcttt gtcttcatac tccgtaacga cgccgtcccg tcattacgtg gtgacagaca 180
ctccatccag accaagggtg gcggaagagc aatattctta ctcctaccgc agccagcagg 240
aaagatcttc tgcagatccc tacggaagga actattcgac aacttccacc accgaaagca 300
caagacgtgc aggcggttat ccaggatctg actattctta cacgagcgaa cgctcatcca 360
gaactggaga tggaccaggt agctacagat ccagctacag ctccactact tctggacgtc 420
ttcctggagg aaccacttac cgtcacttct cataccgtgt gtaaacacga aaattgaaaa 480
attggtttga taaattggtt                                     500
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<210> 764

<211> 302

<212> DNA

<213> Ctenocephalides felis

<400> 764

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acgccaccac ctcttgggca ttcaccttca ctgatctttt tcaattcttt gtgttggttca 60
cngttataat tcctcataac gcattcattt ccaaagtata tcggtttttc accatcaaca 120
ccagcgcata caggagtgtg gtcgtctgtg cagattttta tgcatgggtg atttctgttt 180
tttgcggggg tagcttcgat taggctagcc aatgccacaa ataaaacgac agccaccaaa 240
taaagcttca tccttattta tcttctttcc aaaaattcga tgttgtctct cagatatttc 300
ct                                     302
```

<210> 765

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 765

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acggaaggta tttatattaa tgtcaactct caaatgcata agaaaagctt atggtctaata 60
attgccactg gaaaattgtc taatttaata ttaatttctt ctatgtttgt aaattcgtta 120
ttacatatct ctgtagtaag attaatatga gtatgggttt aatttagtag tgaatactat 180
agtaacccta taaacataga cattaagttg atcaacgcgt ttatatcatt agatctttca 240
atgaaattag cattaaaaat tttcaaataa aaagcgtctt atattatcgc agtaaagttt 300
ccttaactct ccaagaatga ataaactgac gcattaggtg atctatacat caatattaca 360
gcgcgttcat tgatatttcg atgttatttg ctcacattca acatttttaa agttttttca 420
ttctcaagag tttccggcga tgttcccggg gctagtcgaa acacatgcag gtgggctttc 480
ctttctactc ccgtgatatt                                     500
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<210> 766

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 766

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accagagatg aaatttgcgt gcatcaccgc gaagttttgg aagacattgc caaatnngaa 60
tgactacaaa gcggtttcag gaattgaaaa cgaaaacata gaacaaataa taaatcaagc 120
tgacctgcaa aagtattatc cagaaattat aaatttatac aatacaatgc acgtctttgc 180
gttacctcta gcacatttgc agtcttgttt cacgtttaat attgaaaata ttcttaaaaa 240
cgaaaacaat atcagttatg ccaataaaaat taatggattt atcgaagaat tacaaaactt 300
tgtagtaata gctcaaacgc agtctaaatt ggggccaaat gaggaactca caactttaaa 360
agatgtaagc gatcttacca cacttgaaga tcttagtcat aaaataatta gtgaattaga 420
aaaaagcagt aacagcagtg atgaagtaag ttcatttgta aaatcattga agaccctaata 480
atgcttgtga attctataaa 500
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<210> 767

<211> 479

<212> DNA

<213> Ctenocephalides felis

<400> 767

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acattttccg caaacatggt tgttgcaact ttgacacgtg ttattagttt tattattatt 60
acaaagtctt atttggcaaa attttctttt attactattg gtatttgcaa gatgtctgtg 120
ggatcatcatt ttctttgat tttttttgtg ttgatgtcgt gtagtccgcg gaaagctgtt 180
ctgccaatc aaacaaaaac tgttctctaa ggatttgttt tctttggatt tttattcctg 240
tcgcttcctt gtaaagaatc caggcattta tgcgagccaa atccaaaata ttgaaaaata 300
tttgacgggg tcatctattg gattggaact ggatttcacg gtatattttc tttacctttg 360
atctgccatg tcttctttgc tgaccataaa taagtcattt tcaatttttt tgctcatagg 420
ccccacgagc atataaaatt ccaataaatg cacgtatttc ggtaacgatt tgctaatacg 479
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<210> 768

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 768

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actcaagatt tgttacaata ctttataaga cttaacntaa taatacgata gataacctat 60
tacctatcat actatattat attatttgtt atcatcgata gatattctatt atctatcata 120
ccgtgagata catacaccgt cattaacttg taatatacct acagaccttt tacttcttat 180
aaatactact gtctaattta tatattcacc tatattatat aggtttacct tacgccctat 240
gtattatctc tacctatcta ttgtctatac caggaattga acccgggacc tccgcgtgga 300
agtcgcgcac cttaaccact accctatcgg ctaccccat taataatata atatgggacg 360
cactgttggt tccgcgggac attttctaata taattagata attaatacta aggtggcgcg 420
acaacacgcg aaaaaagacg gttgattgta gcgttacggg ggccgagtg taaggtcgtc 480
gcgtgccacg cggcggaacc 500
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<210> 769

<211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 769
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 caactatcct ttaatgttcc aaggctatct tcgcgttcac aattatTTTT caattatccc 120
 acccctaaat ctaattctct cttaaattcg ccaattttac taatgtcctc taactttaac 180
 ttaattaata atgaaataga cattcacac acatcaccta atcaaataat ctccatctgc 240
 acaagttaat ctttttattt tctttcaaat atcttattat tttctgttta taattattat 300
 tgttacattc tgcattatat gaaattttat cttagcattt tatgttacta actatatatt 360
 gtaattttgt gtatatTTTA attgttattc attatgtcaa ataattgtat ttttgagtcc 420
 tcttgagaaa atctgtgggc tatatatTTA aataaataaa taaataaata aataaatata 480
 tgtacaaata tacttataag 500

<210> 770
 <211> 106
 <212> DNA
 <213> Ctenocephalides felis

<400> 770
 acaaattatt gttgtgtggt agtttactan tttagagtaa agtaaacgta acacacaatt 60
 gcatatgcat atattattat tcttatatac atataaacia tagtgt 106

<210> 771
 <211> 453
 <212> DNA
 <213> Ctenocephalides felis

<400> 771
 acataataaa tcgtgataaa attaatTTaa agtagcaccc aaaaaccacc gaactttgca 60
 cgaaattacg ttttgttctc aaaaaagaaa aaggaaataa atcaagatgg tccaaggcga 120
 gaaatacctg gcaaccaagt ccttgctctat tgacaactct cacaagaaga gtggattcga 180
 cgctgtgcaa aaacgcgagg aggagaaaag gcagcaggcc aggaaggagc aggagcagaa 240
 agctaaatat ggagcctggg gtctgtttt caaagacagg gaaacttttg ccagcatgca 300
 cttctgttga aaacataaaa ttttataTgg aataataaat ttgttttata aaatactagc 360
 atactaacia aaggactaac atgattctac cttggaccta aatacaatac tcaaataaat 420
 tggaacaaaa cagagatggc aacgctTTaa tgt 453

<210> 772
 <211> 182
 <212> DNA
 <213> Ctenocephalides felis

<400> 772

acaaagccat cactccacca attacgccag tttcaggcca catcaacccc gctttttttc 60
 ggccttatga cttgttagtt tgttatatct aaatattaaa tttatgttat tcaacaataa 120
 gtaaacccca caacgtgaac aacactgctg ttctttgtcc tgaggtagga ttcgaaatcg 180
 gt 182

<210> 773
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 773
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 catgtaacat gtgtaaatat acaactacag ttttttttct aaaatttgct atatggccca 120
 ttttacccca taaacataga taaaatggga cagtcagggg acaacagttc ttctaattgtc 180
 tgattttaca aaataatagc taaatatatta atcaatgaaa aatttacaaa gattatattg 240
 tatatgactt agatctggta ttttatcaga agtatttatg agcagagttg gtataattat 300
 taattttttt ccttgtaaaa ttgctttttt ttaactgagt ttacattttt atttacattt 360
 tttattatat acttttttgc cagggtaaaag gttcagttgg ttctttttgc cccatccaca 420
 tgtaagccat tatagagggt atatagaaac atctgttgaa tctaatttga aattaacaat 480
 agattttata aaacaattca 500

<210> 774
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 774
 aacattttctg tgataaataa actctagttg attcgagaat atttgttatg atctttgttt 60
 ctaatgcact tgtaataaat aattatgcat tacaaatggt aaaatgaaat tattatgttt 120
 atttaataag atacataaaa gtaatttatt ttagaaattt ataacttatt ttactaaata 180
 tgaaatatga atttctagtc ttaagatttt actaaattac tgatatttga attgaaatat 240
 tgctgaaaag taattataat ggacattttc acgtagcaaa ggtatttaat cagtaatttt 300
 tgaacatttt cattttgcgt atatatttca tctataattt ttacaaaaaa atatttacac 360
 atgccataaa atgaatgctc caataatcat ttttatattt acctatctaa ttcgnngtaa 420
 tttttatggg cccttcattt gtattatttt ttaatatgca attttaaatt ataagatctt 480
 gtgtttataa ttaatttatt 500

<210> 775
 <211> 473
 <212> DNA
 <213> Ctenocephalides felis

<400> 775
 actacgatca atggtgtgat agcttcgaat taaaatgttg atactatcga gtatccaaat 60
 taaatttgga aattaaaaaa tgttgtgtgt taattgacag aatctttact tcttctaaaa 120

gcaaatgaat aagtttatatg ttatgttact tataaaaataa ttaatatattt taaatacaac 180
aataatgtct gcattattat cttaacgatg ggaaaatgta gtaaaagtca acagatctag 240
ttgaccgtat cactcctgat tattaaccat aggggtaata aaagtattat aaattcatca 300
aaattttaata ttaaaaatga tcaaacata ctgatcttat tatgatcata cctaattata 360
catgtgataa tataaaattt caaatcaata cactagcgaa tactattatt agtttatcat 420
agactaatgc attgattaaa attcagggcc atccttaaatt taattaaaaa ctg 473

<210> 776

<211> 499

<212> DNA

<213> Ctenocephalides felis

<400> 776

acctttncac agcctctctt angtctgatg ttagacgttc ngctngcaac ttttggtggg 60
ngtntcctcg gcnncnaacg ngagntagcc tttgaagatc tctacttgna gctgatatta 120
gctgnattgc actgaanngt ggcgtatgac tgnnaanann acnnnnnnnc ccttnccagt 180
ttntatang catntanata attntaagnc atttttataa nctattatan anattatcta 240
tnggggagnc agncataatt gaaaccagtt ttttctatca atcatagatg atgtaatggg 300
ctaactntca atagaactat tgaaagttac nccatngcat antgaaaatt anactattca 360
annatnaaaa taatacaata attatgnngn agcagntacn ttttaactat tgataactaat 420
gctactttta tatcttaanc aactaagtna ctcatnttgc tagaaaatat ctaatnaaat 480
tatataaact nacatcttn 499

<210> 777

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 777

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gttaaaagta agaaataaga catggactcg ctctaataat tgttctaaca tttaaattac 120
tattatcact agtcttgcta tatttatttg ctttgttttc aatttagtat atcaatcaaa 180
gttagattaa tagtagtttt tcgagctatt taaaaatgat tttaaagcag tataaaaata 240
taactctaata aatattattg cgattgatat atttatataa attatttatt ctatagttca 300
atttaatagc tattaaaagt atattgtgaa tataaataaa attgcttgcc atagatatat 360
taaaatatag cttaagcaac tgtctttata tcatattagt aaggctcctaa tcgggtcatga 420
tattttgtgg tgttgattat tattctgtgc tgtaatcatt gtccaaatga tatctgattg 480
tttaacatga taaaaaatt 500

<210> 778

<211> 188

<212> DNA

<213> Ctenocephalides felis

<400> 778

acatgcgtaa agtgcaatth aaataagaat taaagaccta ttaagaatgt tttatagcac 60
 cttttatgta atttgcataa tcatggatac tagagctttt atgtataaaa ccttattcgg 120
 ccattttattt atatccagaa aagtaaaaaa ataagctggc tctaaaatga ctattattta 180
 taaaaagt 188

<210> 779

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 779

accagataga aaaagttaga agtatttgat gataagttga tgttctcatt atttatttta 60
 taatgacata attccagtta atcattccac cgttatthtg atctgactca ttcctaattt 120
 actaaaatac ctgaaacaaa attccgtcca ttaatagaac agataaaaaa tcaatccatt 180
 actaacaggc ggctthtcgat thtcgttaca aaatgtthta atgttactth caaaagatta 240
 ttatttgthg cthtthtcta aatatggtht ccgtthtata ggattaaaaa tggaattaat 300
 ttctaataaa tgtctataat ttatgatcat thtacaatt gatctthtct tcgaatcgaa 360
 tggacaatgt gtgtcaagaa caacaatagt caagatctat tgattggatt cgattggatc 420
 thtatcgatt attatcagta tcacacctth ggataaagth cagaaatgth gtaattattg 480
 tattaatatt tatatgthac 500

<210> 780

<211> 434

<212> DNA

<213> Ctenocephalides felis

<400> 780

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 attgaacagt atgcacaatt thctcgthcag aatcgaggta aaaththgct gtgaaaagth 120
 gaaatgcaac taththththt actggcttaa tgggtaatat aththaaaca tathththga 180
 gaatatgtgg thgcaaccta aatgtaatat tcaaagattt atatgcaaaa attctgcaa 240
 thctccatga ggagtatatt cgtcaatcac agththtaagt aaaggthgac atcgthtctg 300
 tggagctatt aaagthgatg atcatattgt agaaaththt tacgtattgc acacaataat 360
 tatctthgaa thgtthattag actthaaacct thththgaagg ccatccttag tgatggtaaa 420
 aaatagagth atga 434

<210> 781

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 781

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 tgaatatagc taththaatth aaatgthgaa actthgtatat ccaatagtht ataattcgta 120
 ththgaththc taththgaatt acagggctth aaththgagaa taththaatth thththgaaat 180

aatgctttga aatattttga ttcgaaatat tanatccgaa ttaaaatatt attagaatta 240
 ttatttttaa tcgttgaata tgctttttta ttattttatc attgaactta aaagcttctt 300
 ttcacaaaga tttattaaag agcaaatatg ttttataagt gagtctactt cctgaaaaaat 360
 gtcagaatac ttgcatttta atatatattt cagctaaatg acaagacatt ggcaaaaactt 420
 gtattcactt attttaaatt ctgaagaaga cacaacattt aaaaatattg tcgatttctt 480
 gnataaatta tcgcccttaa 500

<210> 782

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 782

caaactttta tagatgcaag aagcaaatta ggatcaaaac ccaatttatc tatttttttag 60
 tgcagaagat ttttttctga tgcattaatc ttcatacagt tttatgttat ataaaattat 120
 aagtaaatat tttacctcaa catcacttta cagaatttca gtaaaaattg agcaattaat 180
 acaattcaat attgnaaata ctcttactgg ttggagagcg gatagtttca aaaattttct 240
 aaagaaaaat tgagtgtcaa cccgatgttc tattttaaac ggattcgtta tatgccattt 300
 cattaagatc gaaacccaat ttatctattt ttaatgcaa gatttttttc tataattaat 360
 gtattgacct tcatacagtt ttatgttata taaaatttta agtagaacat tctacctcaa 420
 cattacttaa caaaatttct ataaaaattg agcagttaat acaattcaat attgaaatat 480
 tcttactggt ggagagagga 500

<210> 783

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 783

acttcttttg taagaattaa tttgtttata tttatatgta tgtatatgct aaaattacaa 60
 ctaggtattt ataaatcaga agagcttggt ttaaaacaat tcatatttcg ccgactcccc 120
 tattgaaata taaattaaaa ttttgctacg actagaacgc gtggtttctt gcaaagtgag 180
 atcattttat aatgataaaa ttctgaccga aaatttatatg tcgaaatgac agaccagaat 240
 tagttgagtg taaacggttt attcgtcttt caatgtccgg cgtaagtcac aatacaatat 300
 acgttcaactg aagcgatacg ttaaaagggt ttatagaata agaatgcatt tcaataatga 360
 ataatacagc taagagattga attatatccc actttgcaac gcatatttga gttaagagca 420
 gagaccgacg gcagacggca gagagcgatg tccatgccgt cgtcgtgcct gaaatattat 480
 tattccactt aacatctgaa 500

<210> 784

<211> 422

<212> DNA

<213> Ctenocephalides felis

<400> 784

actttcttcc caaaactcga ctttttattt gaaaacataa ttactcggtt gtagtaaact 60
 tttntaaaat atgtaacaaa ttacttagca tctttctaaa atttattcaa ataagtattt 120
 aaattaaatc ttctctata aaatcgtttt atttctacta atttccaata aatgacttct 180
 cgctttgctg ttttttatgc tgnngggacaa acaacaaatg acatatgacc aagcggttgat 240
 atatgcttga gcatgatatg tcatgaatgt ctttattgta attatgccta atgccttaat 300
 aattttcttg aaaatatttt ataccactat tccgtttcca aattcatcta ccacgagtaa 360
 ggtatacatt tgaaagccat aaacaatagt tccatttgta tcatcaatgc aatccctgtc 420
 gg 422

<210> 785

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 785

actataccgg tgcntaccgt ggcaagatga acgtcccaaa acgtcgctga tcaaattaat 60
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 tttccgttta ccaaattttc ctctataatg ttccgagtggt tggccgccac ctccgatttg 180
 ttactattgg catgggcagc tatgctaata tttttccttc cgttgatggt cgttggtgta 240
 gcagttttgc cgggactgcc attactgatt attcgaagggt tgtgctacgt gcccttcgat 300
 tcgattttaa tttgatttct tcaattaaaa aatcaatttt aaataaggca gtgttctttg 360
 aaatagttat ttaatcggtg catttcatag tagttgtgat atttatattt tttaaacata 420
 tatcttctaa tcattgataa gtatgatatt tatacatagt cttacatatt aaggtataat 480
 atataataga ttagtcgtat 500

<210> 786

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 786

acaattgaaa tatatcacag tcaacaataa aactgatgca attttagcac aattgaagaa 60
 tgaaatccaa ataccataaa caacgcttaa caaccaccta gctaagatg agctaggtgg 120
 ttgaatattg gtaagtaata taaataatga ctttatcata caataatatt actttcactc 180
 atcaatttga cacaatttcc caaataatta taccaataac tgagaaaatt tttgaacaaa 240
 tttcgacagt tggttatttg atatatgtta tgtgctgata tgattataag tgtatgatat 300
 atattgggat gcttaatgga acatttcact caaagatgca tctaagtcag ctcaacaatc 360
 aatcatgaaa gatcgaccgc aattttccat cttgataact agatgtaaca aaatcgcat 420
 tttgtttaga tttttattta tatgtaataa cactgcaatg cgtgattgga tatcaaaatc 480
 ccataagcgt tttttataat 500

<210> 787

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 787

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aacttcttgt agcaccgat ctgttatgaa gtcggggata tctttgtctg cattcatatc 120
tggtggtggt gcagtatggc ctggatttgt ttctcttggg cctgttgtat gaatttcttt 180
atcatgctcc gttggcaaaa tcggaatatc gctactttta tttttaaaaa tctcttcac 240
gtgaccagca atattattat tgttgttacc attaatattt atatcgattc cttctgtgat 300
atctgaatat tcatcaataa aatcatcgga gcttaacgtg tctggagttg gagtcacctt 360
cggtttaaat gtggtcagac gtggcaaagg aggaaaatcg ctttcttcac tcatTTTTTc 420
tgtcacattc atgattttca caatcatatt accgtaagtt gtttcttcga ttctgaact 480
gcttgataat gctcggccg 500
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<210> 788

<211> 436

<212> DNA

<213> Ctenocephalides felis

<400> 788

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atatcctatt atgtaaaata acgatggctg catttctttg aattacaatc gttattaaaa 120
ctaggcaaac tgaaatTTTT gcccttggat tgcagtgtct gagtgaatcg cttttggcaa 180
atgggataat tataatcata tcagagtcca tattatgtgg tccaatattt agttaagatt 240
tgtattatac acacagcaaa aaatataaaa tataataaat atatcctgga aagattagtg 300
aaaactatta taaactaaga cttctcgata tactttcagt gaatccaatt acttcgaaaa 360
aacctttgga gttagaaact aaattcctag tagtttaagg ataataattt gatttgaatt 420
gtaggctgct gtatgt 436
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<210> 789

<211> 277

<212> DNA

<213> Ctenocephalides felis

<400> 789

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ntccctcca acgcaggtgc atcgctggtg gcgctgctgc tgatctccgt gggggtataa 60
taaancgaca tcttactctg agattcattc aaatttgga cttctaattg agccaactta 120
tctattttcg ttttaataata catatctatg cctgcaatat ctttgggatc gaacacaaca 180
gagtcgtac gaccgcaaga accgctttta caattctcga aatagaaact gggcaaattt 240
tctaaaacct tattaagagt ctgttgctgg tatttgt 277
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<210> 790

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 790

caattttgtt gatggcatga taaatataac ttcttataat taatattgca gattaaactn 60
gtgggtatact ctttttgcca tcagcatttt ttattgattg aatacaacag attgtttaat 120
aatatttcca atcaataatt gtgatggttt atttctacta gatttgaaaa tcatttgatt 180
atgattttaa catataaaac cgttaaactt cgttttaatt atttgataat agtgctgaat 240
tacacattgt agccattata ttaaacaat attcaaatac ttattagtca aaattagtgt 300
ttactataat ttaattttaa tattgtgcaa ttttatgtag tataatttag aaatttatta 360
ttaaacacgt gttttattgt gaataaaata taagagattt atggggaactt tttcaataac 420
tgaaattgag ttgctttgca tttttttaat atgatgaatc gtttttgaaa tccatattta 480
tattttatta attgacctgc 500

<210> 791

<211> 326

<212> DNA

<213> Ctenocephalides felis

<400> 791

wcmdkccadg nhtastcrys ktwbkhtnta hdvdacsagd mhacrnvcwr tbwwyrrwyk 60
vnwmtmsnwr manrgarcyr chsnamnb tydnachcks mcratndats strandsncnc 120
ttacaccctc catgctgatg ttgaagaatc ctttcgtgtg tttttggaac aggttgacgc 180
ctncatcaaaa tttataattt ctttcgaaaa tcaaatgtc gaacatcagg tcaatttcca 240
tttctaaact gtcacgggtc acagttgctc tgacttcttt gatttcgcaa ttgctgctcc 300
cgaagacttt gttgtctttt ccctgt 326

<210> 792

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 792

accgttggtc ctaggggatg aaaataagca ggttataatt tttgtaaata acaacaatat 60
ttataatcat actggaattt ttacagaatt tgtggagcaa gcctagataa aaattttgcc 120
ttattttctc agatgttcat atcttattat ttatgttcaa tattaataaa aaacattacg 180
aattatgatt ataaacatta ggaaataaat tacaatatga cttaaattaat tttcaatctc 240
ctatcatttc agttaatttt tactggtgct attatagact tgcttcatta agtttcagaa 300
ttaccttcaa tagttgtaat tataaaatat atttataaag tctataaatt agtaaaaatt 360
gtatccgagt aagcaatttt aaacagatta tttactcact taatacattc actaattata 420
tggaatacta ttagttagat tagaagtagt ttatgaacaa atgatttggt catataggag 480
tggtctgtga caacaaaatg 500

<210> 793

<211> 219

<212> DNA

<213> Ctenocephalides felis

<400> 793

aatatgggca acaataaaaat gaacattaac aacgtgaagg cgtaaagtgc gcaatactgg 60
aagttatacg tttgaaatta ccatgtggct catatttagt atgtttaata catttagaac 120
ccacaaccac gctaactgat aattaatatt tctaaacggc aatacgtgta tcattccgtg 180
tctgctatct tcgccataat caaataaaaat tgtttatgt 219

<210> 794

<211> 252

<212> DNA

<213> Ctenocephalides felis

<400> 794

acataagaat aagttattat tatgagggtta acgacgcgcg aactaaaatt atcacgctga 60
aattttattgc ttgaatacat attaaagtaa cataaattca aacttacaca tttattcatt 120
tatattaaat gaataaatgt ataaagatta ttaccattca cgttcttcac atattgcgtg 180
cttacattat tactttgatt gtgcaaatat tataacattt acattatggt ctaatgagtg 240
attttttcat gt 252

<210> 795

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 795

acttagctgc aagctttttt atattctgac cttggttgc atgagttctcta aagttattcgg 60
gacactcatc acgtttttaa aatcttaaaa atccgggcat agcagcaaaa tatgttgact 120
gcagctgtgc ttgagaccaa ggtccagagg cttttgcttt atcattttct agaccagctc 180
ctataattaa tgcggctggt tttgttcgca tagtgtttgt tgctactggc cagtaatttt 240
tcttagaate ccatttcttg atattaaatt gtcctttata tactgtatct aaaagttttc 300
cgagctcgaa agcttctttt tttccacctt ctgttaattt actagaactc tctgataagt 360
tagtcaactt gggctcctca ggataattgc aagcttcatg gctggacctc ttncatacaa 420
aaacaaactg aagttatcat tgctaaaatg tattgactga ctagcaaate aaaagaatca 480
ataactctca tgtactataa 500

<210> 796

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 796

cgggggccna cncttatccg atanacccat agaccttata ctntcataga ccttatncaa 60
tacatggacn gggagntnan cgcataaaaa gcgtcaaaag atgtcctacg gnatgagggc 120
gtacgagggg aattttgcgg ccgagatatg tcaaatacga acacgagctt taccganatt 180
agtcgaatgc actcgatcgc ttaaatttta cagttacttg gggtcacgtg atgtttgatc 240
gttcggnttt ttaaactaaa agatgataaa aatatacctg ttgtaaaatn ngttaaangt 300
aaaatgtctt ctaaaatgtg taaggnaagg tgcctgattg cagtaaaacc tgttttgtgc 360

tgttctgtat gcttcgcaag nattccggga aatncgacat tgatcgttta aaanatcgag 420
gattctttta tatecttcga ngaatgttta tttatgttat atatagantg ctantcaaag 480
tctttnttta tgtacaaagt 500

<210> 797

<211> 324

<212> DNA

<213> Ctenocephalides felis

<400> 797

gctgaaggca tgaacgagca attgagcaat ttaacttaag aagttttgac ccaagcccaa 60
gcaggggccc cgcaggtgcg ttccagtgtc gacaaattcg ccaaagaaca cgaagccacc 120
cacaccggcc actaattata aacagaaaaac cttctgtgat catcatttat catatcaaat 180
atatatataa attcattaat taattaaaat ttgttttata gttgttttaa taatcttcgg 240
atatttgtaa aaattatttg gatgctcatt tgatttatat tataaataan atacttcata 300
aaaaannnaa aaatanaaaa aann 324

<210> 798

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 798

gcctggcctt tgtggtcacg ggcaggtaaa acccttgaca acttcgattg catttcacct 60
tacattttca aatatgtatt tgggtgtgtca ctagtaattt gcataatgtg tttagaatgt 120
tccggtgaaa ctttgctgct atttataaac gttaagcggga attagtgcac tacgttcaag 180
gtattatacg agcataaattt tacataattt aattgattgt cgcaagctac acatttcatt 240
aattattctg attctattaa ctaccgcaga ttatcctgaa actaaaaaaaa atatagattt 300
ttaactatca aatatctctt tacctactgc tggttcagtat tcttttaaca gtgtttgaat 360
tgataaatgc ttttcactat tttatttgcg aaaattatgg aatattcgca aacactttat 420
caaataaaat gataaatttt cgtatttctca aaagtaaattg cttgtagnaa tctaaaataa 480
tctaatacat gcccaaagtg 500

<210> 799

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 799

acaataaaaa tacgaagata taaataaaaa aatgagaatt aactttttta acaatatggn 60
aagaaattta ttataagact aaaatatttt gttgtatata aaggtaagac acaactaaaa 120
taattgaaaa atatgcaata actcactata caaataattt gaagaaaaaa caaaaaacac 180
ggaaaatata atgcaccaat tactatacaa ttgtcaaagc acgaattttg aaaactatta 240
aattaaaaca aatattaaat taaaataaaa taaatgaaaa ggtttttaaaa aataaactct 300
tttcatcgag acgtgttata tgtttggaag aaaaattact agtgaattgt gttgtgtgtt 360

tctatgtaaa gataaggaaa ctcgaagagc tgtttcgta ttggtgaaag actgagatag 420
 gaaagttttt gtggcgcttt gccggcgaaa aaatacgaag taaggantgg aaaatatagc 480
 tttggattaa gctgtaatag 500

<210> 800
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 800
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 gnaaccttan atcttaattc aacacttcct ggtgattttt tctttgagtc gttaagcgtg 120
 aaaactgact cagtattgaa accaacaaca gtcttctcgt ccaatccgct agtttgaagg 180
 tcaagtgggtg caatcagggtt atatgtgata ccttggtatt cagcgaattt gctggccaaa 240
 tagaatttga tatcttgga tggtaatttg gcggctttta catttggtcc gtgaattcca 300
 ataattgttt tggtagcacc agcgcggaat ggatattcaa cagcatcatc atatgcagca 360
 taagcagaag tcaatccgaa ttcatacttc acgtcattca cangcttagc aatagttcga 420
 taagtcatca agttttcatg tccagttttc aatgggtgtag ctgttggttat cattacggnt 480
 tacgggtccag nttaccacng 500

<210> 801
 <211> 166
 <212> DNA
 <213> Ctenocephalides felis

<400> 801
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 ggcgctacgt atcctgggag agcaaaagct acagctacga gagcaaataa aacgaccagt 120
 ttgaacattt tgatttagtt ttgaataatt ctcaggaggt ctgaat 166

<210> 802
 <211> 266
 <212> DNA
 <213> Ctenocephalides felis

<400> 802
 acttaataaa atatttaaaa tttgaactct acttctcttc ttaaaacttt tcaaattaaa 60
 ancatttatt ttagtaaaact atgctcatta ctattaaata cacatatcta ataaaatctg 120
 cacatgaaaa gaagagcggg taaccgctgg gttgctccct tgagaaatat ctaggctata 180
 tattcaaaga aaaaaaatta tagaacacgt agttctgata gctattgata taaatatata 240
 aaataattgt aaaatattaa caatgt 266

<210> 803
 <211> 499

000199-12101

<212> DNA

<213> Ctenocephalides felis

<400> 803

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catataatac taattataaa ttaaagtgtg tgggggttgcg ttgcttctgg gaaaaacatc 60
gcaaggaccc atacaccgaa tgaaaaaaaa taatttatta acgaaacgcg aattactaga 120
acctgccgtg gggggtaggc gacaggaaca catttaaacg cggaatcgt tttaaacgat 180
attaaaatta cgaacaagtc ctgcacgaa caaaaaaaaa attaaaatgt ggacgcaa 240
aactcaaaat tataatttaa caacattata aaaaaataatt aaaaattgtc aatgtgattg 300
aataaaaaaa attcatgcac aataaatccc taaagcaatc cgccactgcg caaaacactg 360
tatgaaatct gaaacaaaac aaatgtagtc aatcgtaa atttgaaaca taagatttat 420
attaaaattt aatattattt aatttatatt aaatttaata atctgaagat tgattaaatt 480
atttatatta actcaaagg                                     499
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<210> 804

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 804

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gaacaagagg tttaggnatg agatctgcaa aatttgggca agatctaaaa tcgaaggaaa 60
ttattttata tgaatatatt gaatgtaaaa aaatgtgttg aaaaatttat attgtaatgg 120
atggtttcat aaaggcggtg ctagaaacaa aattattata gttggtttta acatatattg 180
caagatatatt caaagatat tgttttagatt atttttctac atttattttt catgctctta 240
tttatagaat cacgattacg ataaaatgtc taagtttaaa tattgagtct gctgatcttg 300
agtctaact tcaatatcag aattgttggt ggcattgttg tagaagcact tctgtgaaag 360
atcttttgcc catatgaatc tgtggtcaat caatttgcg gtgggttgct tataattttt 420
cctatttggc caattattct ttggctacga ttttgagaca natcttttcg gtatcaaata 480
actcttgatt cgaataatca                                     500
```

<210> 805

<211> 216

<212> DNA

<213> Ctenocephalides felis

<400> 805

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actaaagatt ctttatattt ttaatatggt ctcatcgcac ccgtttaatc tagttcaagt 60
tttataatac acaaacatct tataaattta agtataaaat ctaaaaatta tcacacaata 120
aacgctagtc tttcagagta aataatataa cccttaagac tttgattcct aaattaatgg 180
taatatcaac cacaaaatat tggaaaagaa aatcgt                                     216
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<210> 806

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 806

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actgtaaatt tttacacaaa atgcaaatat ttaatatctc ctataattta tggattaatt 60
ctgccttatg tcggaagtca accggatcat aaaaagtgat ctaattgcgt aaaaaaatta 120
gtcacacttc tgccaacgta tatcttggag catcgtttta ttcacagata tggtgcaatc 180
atttcaatta tacgttggta gatcttctag tcttagtctt gtttttataa tcatagagga 240
gactggagaa aagaatactg gaaaacctta ctgggtgatg gatatccaca atatcgttag 300
cagatagtat ctgggataga tttttggagt ttttagtcat ctagtaaaat attttttcac 360
taatattaac aacatccaga ataagaattg atcaaaaatt tttacttcat tttataataa 420
gtttgttagt aattcgtgat aggatatatt tttattactt tgattatttt ttaataactt 480
tccttccatt ttaacaacgg                                     500
```

<210> 807

<211> 355

<212> DNA

<213> Ctenocephalides felis

<400> 807

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acaagaatgc aattattgtt cttcaaagga aaatgattga ttttctacac caacagataa 60
aacagtctct aaaagaattt gtaaaacttg aatatttttt tcggtgatac ttgcaggaac 120
cgtaaaatac aatcaccacc accaccttta gcttcagcat tcttggtttt tacctttttc 180
tgtttttaac acctgtgaac tgccttttcc tcgacttcaa ctggctcaac gatattttta 240
gataccaaaa aatatcgtat ctggataaat ttgttgtgtc tgcttttaat attttagact 300
ttcatttttg tattaacatt ttttgtgaga acttttactt ttactaagtc ggggt      355
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<210> 808

<211> 424

<212> DNA

<213> Ctenocephalides felis

<400> 808

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acaagcgatg gaccaccngc tcncccgctt nngttggtcn gtagtaaaag aaatctaaac 60
ctnnngttct tatttattaa gnncattgng taattcaact tacacctagg taatttatta 120
ataattatcc aattattaat aaaaaaaatt aatattgact acttaattac atttatattt 180
gctaaaatag tatattttaca tcaatttttt ttttcaaagg caatataaca gaaaaggctc 240
ctgataccat gatcaggcag attctttcag cttgtggtcc agttgtttct tggaaacggg 300
tttctgcatt tggattttgt gaatttaggt gtgtattgta atgatttatt aataagacaa 360
aaatgtctag gttattaaat tacgaaattc attccagttg tccagaagct ggtttaagag 420
cagt                                             424
```

<210> 809

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 809

acatcacaga tttttttttt tcaatatata tttcagtgga gagaaattta tccaacangg 60
gggtaatttt gctcatacca gtgaaatatg tttattagcc caacttggct tcaaataata 120
taattttttt aaaccttatt cacatatatta ttatcactgt acgacttttt caatgcgcgc 180
tcgaacgaaa ttatgaacga gttttaaaaa tatttttagc agctcttaca gtgttggtat 240
ttgtaaatga tgatatattat aaatttcaac agatacttga agtacacagt caataaaatt 300
tccaattttt cacaacnggt taaatttgca ccaccggnaa ctggcncctt tgcaaaaagnn 360
tccntntngg aaantaattg gccgganncn aanttanctt atnttttttt cnggtccana 420
ccgccctttn aaaanccctt ttttttnggg aaaaaatttt ccnggggttt ttttttnccn 480
aaaaanncn ngggnnaaac 500

<210> 810

<211> 298

<212> DNA

<213> Ctenocephalides felis

<400> 810

ggggacatat ctaaataaca nccaaaacaa ctctcctttt tgtttgtgct ggggttgcaag 60
caagcgggga ctttagtcaa acgtctntca aatgctnta aatctttaca cgcagcttgt 120
tcaagtgaca tgtttactat tttttgtgtt acatgatcac ataagatnat natgccacag 180
ctaaaatcnt ttgaaaaaaa taaacctggt atttattaca cactacatca atttacctt 240
caaactaacg tngcattttt attgaatata taacatgata agctaaactg aaaaaatg 298

<210> 811

<211> 243

<212> DNA

<213> Ctenocephalides felis

<400> 811

actgtatctt tttnctatt cacaaaaagt atttgtcaga agtgggattc gaaccnnggc 60
cctcatagag gaccagaatg ctccagccagt tgtaaccgg caaggaaacc ttgagtatgg 120
cgcttagac cgctcgcca tcttgacata cagcaaagct ttgcaattgt ctcatcagaa 180
acatatttgc tngtgtaat ttacgcta acaatgaact ttgtttgaga tttttttaca 240
agt 243

<210> 812

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 812

acttcaagta taaccaacg attcacttnn ntctgtgcac tttggcataa atatccngna 60
aaatatgtaa aacaggaacc agggcaccgt gataatgtaa tcaaacgccg gaaaatgatt 120
tttgatcgta tccatacctt tatagcgaag tcgggaatcc ttgtgattat attttcctaa 180
aaaaggaaa aagttctcgc atactgaaaa gaaaagtttt gtctggtggt ccgatttcga 240

actttcaaac ttattcattc ggttaccgcg accgcgaatg aaatattatg atttttcttg 300
 ctcttgccg gaataagata gattgacttc gaatattacg gaatataagc tgggctgcga 360
 gtaaattgtt tgatttgggg ctttttatta tcgataaaat atgtgctttc tttgaagatt 420
 gtttgaaact tctgtgttat cttcaagttc acaatgataa cattaagctt aataataaat 480
 atgttagagc aaacaaaaca 500

<210> 813
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 813
 acttttcaaa ctatactgga gagttttttt cttntatttt ttattgtaat tactatcaat 60
 acgatcacct cgttacggtt tgacgttgag ttctgggaca ccctgggtaa attatgttaa 120
 ttatatgtat ttgagcataa atacatgtaa agcaaagtga ttactgatag acttttgact 180
 ttaactttac ttgaattagt aataaaaacca catgatagaa aattattgag tttttttata 240
 gaaaagttta ctgttgattt tttttattaa atcattgcaa tgtgctaatt cacattcttc 300
 attactcaat tttatgcca actcattata atattttgtt tttcttaagt tttcatacct 360
 cgtatcagaa ctttctcaa gtcacccct agctttactt taacttcctt attatttcac 420
 tgataataag aacttttgat ttttttaaac atatatctat caagttaaag tttaaaatat 480
 tcatgaaatg aactttgat 500

<210> 814
 <211> 285
 <212> DNA
 <213> Ctenocephalides felis

<400> 814
 tctgantatt ttatnaatat ttaagacatg tgcnaanntg angtnnnntn natanaanaa 60
 tnngtgcnnta tcaaaacgtn actttttttt tctctccaaa ggcaattttt ttaaaaaaaaa 120
 ctccgattat ccgaatattt gattatccga atgggtcccg gtccccatta attcggataa 180
 ttggagttct actgtataaa actttgtata tttttgaaaa ttttgaaaaa actattgata 240
 tttgtttcag ccatacaagt tagtttaaaa attaataatc tcggt 285

<210> 815
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 815
 actcttcttc gttcaccaat gaagtttgat tgtgcatatc aaacttcctg tgtccaccat 60
 agccctgaat tctttgccat ctatggtgac acgtttcata tttttttctc ctgtctgac 120
 ctttttatca gcaatccaaa ttatttcacc actaggattt ttagtgtcgg tttcaatttt 180
 gatcttatta cgttctgggc aatcctgaat aaagtgtcct accttcctgc atcggtagca 240
 tatcacttct ctttttcgag attgttact atcttcttta acctcacact tcactttcgt 300

09991935-112101

ggtagttgca tttcgtgtct ggctgcactc atccgtttca agctttaagt catttaaggc 360
actttcatga gccaaaatgc ttgtgccgag ttcgtcataa tcggcggtgct tctctgcagc 420
taaaatgaca tacagctggt gtctagcagc cgtaagtact tgccgttcgt tctcgaaact 480
catgcgtaac gcttggcaca 500

<210> 816

<211> 346

<212> DNA

<213> Ctenocephalides felis

<400> 816

actgcatgcg tagtttgcg aatgcttctt tccttntaga tatgaatacg tcgcattctt 60
gatcccacca cacggagggt ttgaataacg ttctttttgt gatcttaatt tttttttata 120
ttctttttctg ccgctatttc tataattcgg attacatggt cgtattttaa attctccttt 180
tctctagata taggcgattg taacaatcgt gttatgtctt cagcacatcc ttgccaat 240
gctttcttga tgttccactt tttgtgggga taatatattat gtaagttaag aattccacac 300
ctatgtttat aatgattaga agatggtcag aacccaatgc ttctgt 346

<210> 817

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 817

accattatta aaattattgg attgttttat ttgtgccact cttaatatata atttgcatga 60
tngtagtatg gtgtggatag tatattttat gtagaatttg agggtaacta tgtatatatg 120
catcgataat ttttcacgtc gacctccatt gcatgtcaag ttgcagacgt tctgtttatg 180
tcaacattat caaggtaatc gcactcaact caacaatatt tccatatccc ctttttggtta 240
tagctaaaaa caatttggtt attgtattta agcatttaat aatgtgttac aacaatagaa 300
attgatttga tgtcttgggc ttgccatcac taacagtgtc acgagcttg gcttggcaag 360
caagttctat actcatctgg gcgaacttga tatcaagcag tagtgatata cgttttctact 420
tgaaaacatg aattataaat aaatttgcag ttgaaatagc acttctggga attctgcaga 480
acgtaaaaat ataatttcaa 500

<210> 818

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 818

acaatagcca taaagcatga tgaaataatg tncacaatag tctctaagaa ttccattgtt 60
ngaaggaaaa gttgaaatat tattatgtaa gttaaacaga gttatatgtg aagtattatt 120
ttctggtgtt aacattgtga gcacttcaat attggaatta ccccatatac ttgttatata 180
ttgtgcgcgt agaaaatgct cgtgtaattc ggaccgacac ggtggtgaat gtgatgcgtt 240
atgatttaaa tattttttat taaatggctt gttcactttc tttggtttat aagtataat 300

gatcttatta catctcgat cattaacagt tctttaattt ttcaataatc gggaacattt 360
 cactgctgct ccctgttata taagcactaa gtttttgaat acttcttggt attctaaatt 420
 tgtttaacaa ttgtaaaagg tcgttcttac cttttaggaa aaatgatggg tatagcacia 480
 ccattagagt atgaaatttg 500

<210> 819

<211> 431

<212> DNA

<213> Ctenocephalides felis

<400> 819

accgataatc tctcaagaaa tgctaattctt ttaagtgaat ttctcaaccc tttagtttagc 60
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 ttgaagttga ataaaaatgt agaaataaag ttgtcgaaca ttgtatttga gtctttggac 180
 ttgttaagca aggtccatga ttctttttca agaagacatt tgaaaatcaa tttatttgat 240
 tcatcaaaat aacgtttgtg taagataaaa gtagatttag aagttgaaaa attacaaaaa 300
 ttttaattta tgcctcgatg gtctgaaaga gtggatttta taacacgcga atcaaagtct 360
 ttttaatttg tgaagaaatt atcaatgcaa gaagaagatt gatgcgaaaa acgagtaggt 420
 tcatgtatag t 431

<210> 820

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 820

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 aaatctgtca tgggcatgac agtatatgta tatttagcag tatatgtaat tgatttgtcc 180
 acttttatcc attgggtaac atcatattta ccaatatctc tgctattctc acatctgtca 240
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 ccagtgtata atgaggcaaa tcatccttca tatcacactg gcatcactgc ttattaagcc 360
 tattcattaa aacttggtgc cgtaatgaat cagccttttt attaattatt agtgcaaaat 420
 ctgaacaata tacaacctta tactgaggtt taccacaata ttctatcaaa ggtccttcca 480
 aatgcataga catctcacia 500

<210> 821

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 821

acaaatagaa aaaatactta tttttttata acttatatac catatgaaaa ataataaaaa 60
 ctttatttgt ttacgtcact atgctctatc attatttacg aaaaattttt atatgcttaa 120
 agctttttgt taataatttt caataaaaga ttcaactaaa taattatata atataaataa 180

agtggtcgt aatatgcaaa caatcactgc caccgcagta acttcagccg taatttatgg 360
cacatcactg ccgatatgat aattttctat gcttttatta ctctgaaaag cgtttcgttt 420
tggtccacggt gtcggttgga aaattttcat cggtggaaac ttgccgtaga cgctcctcctg 480
ctgtccccc cttccacacg 500

<210> 825

<211> 370

<212> DNA

<213> Ctenocephalides felis

<400> 825

acttgaaaat tactaccctt gtagagagct agcaaagagt ttggtgggac taattgttta 60
cttccaaaac tccgcataag aacatttgca ataaatgata aataaatata tcttcttcaa 120
ttagatctta gtgataaatt aatagtgtaa ttagaacagc accaaatata taaattatgc 180
caataaatca gtgtttcaca cagcactgct acaaaggta aactaaccta gcgtcttgag 240
ttaatcggag gagagactca acacttaatc ttgcaataat cttgatatga tattgtgatc 300
taagcaataa ttttatctta agataagaac tttttcacca tattatgggt agcttaactg 360
tattgtcagt 370

<210> 826

<211> 166

<212> DNA

<213> Ctenocephalides felis

<400> 826

acaaaaaagt taaaatttta agaattagca gttgtttaag tgtggcatca aaaagttgtc 60
acgtgaccac gccacgatt gcaaaagaaa ggggtgaagaa gaggggtata tcatggccga 120
acagcgataa ctacagaaaat aattaaatct ttaaaaatcc tcgcgt 166

<210> 827

<211> 304

<212> DNA

<213> Ctenocephalides felis

<400> 827

accggtagaa aaattgttga taatgtgcgc attactnatt cgattttcaa tatttgcgat 60
gaccantaag tttggtaggt tttcaaggaa ctctcgctgt gaaaatacta acattcatgt 120
tacaacacat agcaaataat atataaatg aagtttgaat agcaaatact agaaaaaaga 180
caaaatactg gtttacatgt atcaaaaagc gtatatattca taaaaaatgt atgggtgggc 240
tagacagacc actccgaccg tttggagtat aaaaaagtta atatctttat aattatactt 300
ttgt 304

<210> 828

<211> 352

<212> DNA

<213> Ctenocephalides felis

<400> 828

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acgggaagtt ccagcaatth gccttcaagc acgatnccat acatcactag ttttttttgt 60
ttatggggat atattactth cgattattac taaaacaaca gntataaaac tttactattg 120
ctaatagaac gaatntttct gaaaaacgtg atatgggtta aacataggaa attatagtaa 180
attattcatg agagtatatc aataagtcaa taaatatttg tcttctgaat ctttttacat 240
tnggctctgg ttaaatttgc ttactaaata tagaattttt agctttataa tttatctata 300
ttcattanat ccggtccaaa ccataataaa tcagatttga tacaagatac gt 352
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<210> 829

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 829

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acgttgcaaa aattaagcaa atcaagacta ccgtattttac gaatatgtcc ccaattcgct 60
gcatacatat acacataccc gcacactagt gattcgtgct ctataaatat cgtgcgtcat 120
tgatagaaaa caagtgtatc tataagcttt gacattatat tacacaaatg atttatcgta 180
gatgaaataa aagaaacatc tgattctctc attactacca ttttttatgg atatgggaat 240
aatggaaata agtaaaaaaa atcatatat ttcttgctaa agagtagtca tttcaaactc 300
aattattagg gttaaaaaatt aaaaagaaca tataccgtaa ttaggtcaca atattctgtg 360
gtcatcgcca aacttagtaa caccaaaaac accactaaat ttaagcataa ttgagaataa 420
aagactaaaa taattcaggt ctacttttcc taatgcgtga cactcacgga anacgttcaa 480
tgcctcaatg tgtgacttaa 500
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<210> 830

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 830

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ccttaaatct gtatcttaaa aacattttaag taatgcattt ttaatatttt gacataaatt 60
attaaagaat caatagtttt aatatataat atttgacctt gccaaaaacc agatattggt 120
tatctgaatc caggtattgt agttggcttt ttcttgatgt gtagtttatt acaagtcggt 180
taaaaattgt attggtttagc ttttttcaac aatcttattt gaaaatctgc tttgttagcg 240
aattacagag ttaaaactat tatattttca cttgaaggca ttttttagat gaaaaaaatt 300
ttaggtgaaa gccaatatca gtaggggaga caatagatca cttttcttct tataattaat 360
gagtcacatc cagcagtagt tttgttataa attttttttt gaaatcagtc aaaaatgtta 420
actactaatc atcagttttac taatcagcaa aatattcggt aatttaaatt atatactgag 480
actagtcgaa tcatcattat 500
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<210> 831

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 831

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aagaatatga acaaatagta gtagcaccag ttcaccctgg tttagatgta caggaagcac 60
aactaaatga agataatgag gatttcgcat caaggcgtcg ataccatcaa tcagctactg 120
tgcattggaca ttacgtaaac attgacggat agttgtttta attaattgatc acctaataca 180
tatttgacca gtattgcaaa tttttgagtc acaaagctat tgatttagat ttttatatat 240
ccttataaaa gctattttcta tgggtataatt tatttaattt aacaaaaatt tgcaatatta 300
gcttgtattt taaaaagctg attaaaattt attgtgaagt atctaattta ttaaaaaaaa 360
tctaataataa tgaataatat agaaatgaat gaaaaccgac tcgagtgcag tcaacattac 420
tgataatgtg atttgatgca ttttgcttta ttaaaggcta aattagttca aaaaggccag 480
tgtttaattt aatatttatc acttatttaa ttcaaataat taatcactcc agttgtatta 540
taaataatgt                                     550
```

<210> 832

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 832

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gngtgctntt ggtgactgtg actgtactcg tactgtcaac atacttgaag tatgcagttt 60
catgcaaact tctacattgt cattctcgaa cccaaatgac ttacctattg ttttctttaa 120
gtaaaacaat gattgtgcta aattagcaaa agcgttcaaa ttttattatt ataattagga 180
actgttgttt ttagtgactg ttattatcca attctaataa aaaatgacag acacacctga 240
taatgcccga attactacca tgggtgaaga tgtttttgca ataacattaa acccagaaaa 300
atgtgtggac tgtgaacaaa aaccagatta tattcaaagc atttatctag aagaactagc 360
agaaagtttg aagccgcaaa aacacattga cattgagact ttagaacaag ctctttttga 420
aaggttgatg ctaacaaata tcacagaatt tgnntaccaa aatccagtaa gccccatat 480
atagattatg tagttcagaa taaagcaatt tctattaaat ctgttatgaa agacttagaa 540
gtacatgctc                                     550
```

<210> 833

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 833

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gtaataaatg tgtattgttg tggctgaagt ggattaaaat aaaattaata ggttgataat 120
aataataagt tttaaatttg aaggttatcc attacaatgt gtaaaatttt tttgctaaac 180
aaataattct agacaaaaat ctaagtgcct atcatatagg cacggactat agacaaaaaa 240
atacaaaatg tttccaaaac attatgattg ttcttaaaaa caaattgttg acttttagtt 300
gaaaatgaaa tgtgatttaa aaattgtcgt ccaaaaatat tggtagtagt gaatgttgat 360
tgccaaaaac agtagctgga aaatagtgac aaaaacaaag gttttggtag tgtttttatt 420
tgcaaaatat tggcgtccag attgtgatga taaaattgat agttgagttg acatagttgt 480
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gtacaattaa taaaacaaag tngtntaact tcaagacttg ctgctcttca caaatctgat 540
tgaatataat 550

<210> 834
<211> 550
<212> DNA
<213> Ctenocephalides felis

<400> 834
atcgtagcgc cgatacggcg acgtccgaca atattacgca tattcaacta atttattcat 60
atcataacca accgttcagt tcaaactaaa ctaaactaaa ataaactaaa ccaaagcgaa 120
agctaacgac taacggggag gataagcggg gggccacgag gcgaccccag tticatttta 180
catgtgtgca cgtatgcaaa ataacagttc gtcgacaaga cgttgtacgt ccgccctata 240
gtgaaacacg aaaaacctca tatccgatgg gataaaatcg accgaattca gcggacgact 300
gaagatcgcc gcattcaacg tcctaaagtt aacaacttag catcagttgc ggcgcggtga 360
gagtgtccgc gataggacag cgaagcgatg atcgatccca gttcgtctga agaagagagc 420
gaggaagagc atggaggagg cggcgagggc gtcaagcagc agcaccacca tcacagccgg 480
cagcgcgccg agcggagtgc ttcgtcacag cgaaggcaac catacgctca ccggcggcag 540
tccggcacta 550

<210> 835
<211> 550
<212> DNA
<213> Ctenocephalides felis

<400> 835
gacagtttgg ttgtgtcagt caacacttca aaagtcagcc aatgaaattt gttttatatt 60
tgattggcgt tcattcgaat tttctttgcc gaaaagatta gtttataaat taaacctatt 120
tgtaattgct taatgcttca ttgattgttc tggtcatctt aaggttattt taaacatcta 180
acaatctggt ttttggtaat aaaaatgcct agattgtcta gattaacttg tgctgtggag 240
gattgagagt ttagtacata tgatagaaca ataatgaat tacgcagagt tcagtttttt 300
gcattaccat ctggattctc taacagagat cgtaggtcga agtggtattt atggctcagt 360
gatatcaatg gtgaaaattg ggaggtatgt aagtattcac atgtgtgctc tctacacttt 420
attggtggga aaccttcaaa catgctttta catcctgata tgctccatca ataaagactc 480
gagatgatta taccatttag aagaaaagat gcctggcaag tttgaattat aaaagcaaaa 540
atgcaatnta 550

<210> 836
<211> 550
<212> DNA
<213> Ctenocephalides felis

<400> 836
tgcacgccat caacgaccac cacgaagggg tgatcatcgt cggcacggat ggctcaacgg 60
caaactctcg cttgctgtcg agcactgtaa gatcgacacc ggtcgttctc ctcagcacgg 120

acggcggacg agctcgtcaa tgtaatgacg tagcagcggg cgctgcagtc cagatacaaa 180
cagcgacgga ggatgccagt catcccggcc aaaaggacga atgggttcgtc taacaagtag 240
gatcaaacat tggctgcagg gcgatgctca tgaattggaa atctcgctac ctatgacaat 300
tccatgaatg aaaatcagtt gcacatttta ttcataaata aatatagata aacaataaat 360
aaaacgattt aaattagtat acactgtttg tgttttactt tgatatgata ttgcattata 420
taatataatt agcaacccaa tttgataggt gtattttgtt gaatatattt tcagatgggtg 480
aaagatatta gataaataaa ataaaactaa attattttct caataaatta ttacttcaca 540
caaatatttc 550

<210> 837

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 837

gcaaaagcaa tgactgtatc aaatggcaat ttagtagatg ttagattttt tggagcacat 60
gataaagcat ggatacctat gaaggattgc ttgctttata gtgagaaaga tccaaatttc 120
agtataaag gaaaacgctc tgatttcacg gaatcactta gggagttagc tatatatgtg 180
aaaaatcttg agcaaaaatt tggaaaattt tgtcatgcac cattcaaac tccatattct 240
aatgatcaag cagctattta tagtataatg ttaccttcac ataaattcaa atcagatatt 300
gcaataaaaa aaataataac aaaacaaaaa gtttgtgaca taacggataa actactagag 360
gacacaaaag gtaacatgaa aataaataat tcgttagatg aggatagtta tattgaagga 420
tatgatactg aagatgagga agcactaaaa gatgtatcaa atgaatctgt gatatgtaat 480
gatatgaaaa ttaaacaaac ccttgctgtc cgtgttagaa tgagagnggt aaataattca 540
caggaaaata 550

<210> 838

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 838

atgacagcca tataagctat cataattaaa agtgctttta ccgttttagta ttcttttaga 60
atattaacta aacaatcatc atgaaattct acggtttaat gtttgtgttg tgttttgcaa 120
ctctttccac atgtctacca gtggacaaat ccgtagaagt tgagggtttc agcagtgaag 180
gcaaaattct gaagaagtac ccgcaagcca agcccgtga caagaccac attgatgatg 240
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ctgatgtata caacgcccc aaccgcaaga tgttgccctg aaattcaact ttcccgaaa 360
agtaccctat tccgtcacct acgcctctgt cgaagtccta caagattctg aggtcggaca 420
ggctttcatc gtctcggagg aatcggccaa tctgaaatcc atttggtgtg tgtagctgca 480
aaattaagca agtcaatata ctacgaaatc tacgccatgt ctcgtaaatt cttaatgact 540
gaatcgtcgc 550

<210> 839

<211> 549

<212> DNA
<213> Ctenocephalides felis

<400> 839

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aaattgacga gtcaagaaga actactgcc a ttaaactata agaaatgtga aaattgttga 60
aaagcagtga cttttataaa atatcaacaa caattctgtg tgccatatgt gccaatataa 120
acttattttt gtatgtttgt atttaaatatt tattttaaaaa tttagcgaca cgaaaaaata 180
agaagcaata ttattgatct aataaacagg ctgcttaaaa atacctctaa ctacattagt 240
gattaaatta taaattagca attgcgaaag ctttttataa tactaacaaa gatattaatg 300
tggcagctga agtaaagat acatctggta gctaataatg tgtgatgatt atattttgct 360
tattacaaat gttattaaat tgtatatatt tattaatgag taccaatttg taaataggaa 420
atatctttat tcagcaattg tgtggaaagc atagtcaatt ataaatatct ataaaattat 480
tgtattgtaa atctaagac taattataat aatgtatgaa tatgaagcaa tctataaatt 540
tgngcctcg 549

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<210> 840

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 840

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aatcggcacg aggttttaaag gtagtttatt aaatgtgagt ggtgtttaaa tttattaaaa 60
ataacgatca aatctaagtt ttacaactat ggctgctgat gcaagaactt attcgatatg 120
tttgggtgta acttgatgtt ttgcttcgat tttgtcggcg tacgcacttc ttgtggaaact 180
ttcggctgaa cttcatcctg atcaaccagc catgtgcgat attggtgaac atatgagttg 240
cagtagagtg ttgacatcca ggtatggcaa aggctttgga attggttggtc taatattagg 300
agaaaattca aaattcaacc aaccaacgg atttactggc attatcttct actccttcac 360
ttctacttta gctctcatag agaaacgttg gacagcaaaa attcaattag ctttaagttt 420
catatcgatt cttctctcaa tttatttggc atgtattcta tattttgtct tcacgatttg 480
nggtagtttg cgtaccattt actttttaa ataatatttc atacttccta ta'aaagacac 540
agttgtagc 549

```

<210> 841

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 841

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ngtncngcac cagattttgga tntncnctg tgagaaccat ggangggcaa ttgatcangt 60
caacttggtg ggttantata nggantacng catctaccat ntgcgcngt ttaanaagaa 120
cntggcttga gtgantantn aataacagnc taacctgcc ctacgangat gannaangcc 180
ntttcaantt cantgggagg aaggtancag acatatncnc ttttaannng aaagctggan 240
ntgaatgatn ngcatgaaat atgtaactgg cttacgtgac ctgttntact ancntaattg 300
ttatgcaaaa agcgtctttn ttatnaacng ncaacaagac ctttcntta tnnatntcac 360
tatagancaa ttttnngaen angacnatgt tgatttttct nnncanatcc tanannnncn 420
ttngganaca ttntgtagnn tttnnnnnat gangncanaa ttcnngagtc gatgttctcc 480

```


antatgtttc aacgatttnt cctntacnta tncnnngnaa catttncagg nacaacctca 540
gnnangnnc 549

<210> 842

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 842

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aagcagagtt aggaaaagat ttaccatgat ggttaatggt tgatgaaagt ggtttgagtt 120
gttctgagaa caaggataaa ggataacagg gttggagcaa ttttttttgc gaggacaatg 180
atgggttattc aagtcatatg ctacatcatt gttattcttt tttttgtctt cagccagaaa 240
aatgtaaaca aatcacgtga ccaatttact accaaataat ttttacaatt tctgccttcg 300
atttaaaactt ttagccagga cacaaacctt tagccaggac actaaagagc aatttttttg 360
cgaggacaat gatgattatt caattcacat cctacatcat cattgttatt cttttttttg 420
ctttagcaaa aaatgtaaac aaatccgtgc gattttacta ccaatttatt tttacaattt 480
ctgcctctac tgcgagatta acttttagca ggcacaacct ttaccagtca caaccgggtg 540
aattttgaa 549

<210> 843

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 843

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tttacaatct gagttaagta ttagccaaaa aaatgaagga caatatacaa caaaatttagc 120
tacagctttg gaaacagttg aaaaaaatat ggcacggagc aataaaaggg caatagatgc 180
tgaaagtaca gttgcaaagc ttaagaaaca gatttcacaa atgacgtcag agatgatggt 240
tcttcgaaat gaaaatacat cactgcgcta tgggtccagct gcaaattgatt ccaatagcat 300
gatgagatta tcaaattgagt tgcgaactgc agctagtact gcagagtcgt cactgaggca 360
actattaacg ggtgttgata atttaaggac tcttgtagtt ctttagaaag ctctaaccga 420
atatttgaac cttctgatga caatttctgc gaaaatgaag atgaagatgc cggcctgact 480
ataatgtgta gtgaataaat ttntcattca aatgtcttgt attaaaataa atattctagt 540
ttatatgct 549

<210> 844

<211> 548

<212> DNA

<213> Ctenocephalides felis

<400> 844

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00991935 "1101"

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gtgagtcaat gagcgcacca cgcttaacta gttaaggaac gatgcaactt cgaataaacg 300
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gcaaattgta gtgatatcaa tgtccgattc atcattaact ggctaccaga catctcgcag 480
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<210> 845

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 845

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agaattgtgt cataagtaga agaagtttagc ggccaagatg tggcgattgt tgggagccgt 180
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gcgagatgta ggtgccaatc gtggaagcgt ttggcctgga ggctacaaa atgtttaccc 300
tcataaccag aggcattgtc ctaaaaaaac acacaaggaa gaagaggctg tcaactgaaag 360
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cgacatcgaa caaatcgaga ctgttcctga attgctgaaa ccagtgcga agatagtcgt 480
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gcatactct 549

<210> 846

<211> 481

<212> DNA

<213> Ctenocephalides felis

<400> 846

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aagccataga ttctactttg atagtgttga tgtagcttga taattttcat taatcaaaat 180
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acaatagtta gtgtttttgtt gtttaataga aatgttagat aaaatgaaat acgaaattag 360
tattataaaa ttgatgaaaa tatttatgtt gatataattg ggaactataa atgtgctaaa 420
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<210> 847

<211> 548

<212> DNA

<213> Ctenocephalides felis

<400> 847

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ccaacgcata caggaagagc atttgaaaac tgcacggctg atttacaggt atctcctatg 180
ctaggaacgg caatagaagg aattgccacg tgcctatgcc ggctgacgtc gaaagtgatc 240
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ttcggctgca tgggacattc cgcttgggaa cacgtgattg tgtactgggt cggtgcttgc 420
gccggacact tgcagcagtt gcgttgtgga ggattcccaa attagaaata gactaatcgg 480
tcgaaactaa aatcagcgta atcaaagcat tagtcatatc gatcaaacaa atatacaaaa 540
ataagaaa 548
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<210> 848

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 848

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accacggcaa ctatggatac ccattctgtc tatcccaagg tttcaacaat ttcaactcat 180
tcccaactac ttacgatcac tacaactctg gagtagtga tactgttgtt tcttctcccg 240
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tcaaattcac tccagttgtt gcaactccag ttgttgaaac tgttgccaca ccagttgttg 360
caaccaccgg ttataaccac ccagttgtcg caaccaccgg ttacaccact actggctaca 420
ccactccage tgtatcgact ggatacacca ccactggata taccactcca gcagttgctt 480
ccactggata tactggttgg gaagtatcgt ntgggttggg aggatacgat ttacacatct 540
attcaagga 549
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<210> 849

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 849

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gtatthtatcg gatcgcgaaa atctthtgatt aaccactaaa aaatatattc tatgcaaatc 180
ctattattat aaattattat aagactgttc aaaatgttht taatatgaaa atataagaga 240
ctctccaccg attcggaaac ttctaataac tccaaccggg gttgtctgca tcccttcttc 300
tatctcaact tctthttcgg catatgaatt aagaaaacac tgttataaaa tttagaaagc 360
aataactaac agtgcgaatca catgcaacta aaatttctcg ttgtthatta agthttttcg 420
cggatacttc ttccatctca gccgtnttht cthtttcaaat tgogaacttg aaatattccc 480
agaatgaggg aaatttctgt gtgcatttht aatatatgac atcagaaatc tthtttggaa 540
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tttgaaaaca gtgaataaaa atttatagtt ataaaatcaa cacctttaaa attttgatat 240
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atattccaaa aaccactttt ggaattttga tatttgtcaa taaaattatt attaagttta 360
ctatttactg gcatttttat taagttatta ttttatgcag acatgtaaat taaaacgatt 420
ttagcaaaat attgttgtgc attacatatc ataagattaa tattgttaaa aatgagtttt 480
actgagaata aataactttg aagcataatg tttattatct caaacattat ctgggtaatt 540
atatttctc
549

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<210> 853

<211> 548

<212> DNA

<213> Ctenocephalides felis

<400> 853

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tcctttgggt tttcatattg taggattgag ttcacccaaa tctatatcaa attattttatt 180
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ggatgccgcg attaaaaatc gattgaaatc tactctctca attttttatt atgtatatat 480
ttacttcttg acggagttct atattcaatt cctatgaatc aaaaagttta tatcaagctt 540
tttataga
548

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<210> 854

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 854

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gccattctac tccctatata aggagaattt gataaaccta atagacattt tacatataga 180
tacaagatat gcaattgaaa ataaattaca ccaagcagcc agggcaaagg cactgtattg 240
gactcatgca ctttattatt ttgagaagga gttaaagtac tcgtcaaatt ctccaacgtc 300
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aaccgatctt ggctggatac atatcacaca gatattcaaa aattttaccg cagaatgcat 420
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549

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<210> 855

<211> 549

<212> DNA

0991936-1101

<213> Ctenocephalides felis

<400> 855

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aatgacatga tgtcgacaaa aaacatcatc gccgataagg ataaaacgaa aatcgacagc 180
aaaggtcttg atgatgtaag catggatgat gacgatgacg acgatgtgat atcagcaggc 240
gacgtttcga aaagtaaate agaacaatca ctggctcgaa aaccaatact gaccacaaat 300
gattcgccaa atatgcaagt gcattgtatc ttcaatggaa caacatataa gccaggacat 360
tcggttagata aacactgtga aggcattgtc aaatgttccg aagaaggtct ttggagatgt 420
gagcccagggt gtgaagctct tatgtcacia gactcctgat ggaccacctaa atgatgtcac 480
caccaaaaat gaaaggggtg ccgcgaaatg gccacccaac aannatgctg cctgtctggt 540
tggcancgt 549

<210> 856

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 856

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aatttgtaat ggatgtattt aagcagctaa ttcgttgaac taaaaatgaa aaaccaattt 180
ttgtcttctt catttatata tgtcttgact cttgatattt gtcattcttc tcaatctaaa 240
ttataatttg ttttgacaaa tgaatacaat tataaacata ttataacatt tagttgaaac 300
tacttactac tacaacata actattattt taaaataaaa tatgaatatt ttaaaatagt 360
aattgttgct ctgtttttcg ttaattaaat ttttcacatt gaaaaaatat ttgccattta 420
tatttaaatt atgatttttt aaaagtaatg tgtaatttta ttgtattatt tgaatataaa 480
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taaactctga 549

<210> 857

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 857

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ctcacagaca cctattcaac tgtgtcacgc gttcaaaaat ggaatgaaag aaattgcaat 180
agcttgtgct ctttttctag aactctgttt agatttaaaa atcaactgca acaatttgca 240
tacattggac agacatgcaa tattacgata tgcttttaat ttatttccta catttgtcaa 300
attattatac aagggttaa aatgtgcatg ggactcgttc aaaacattat caccttctca 360
taaacaagag ctgcctcagt atgttattcc tgaggctcagt taaaatatag ttgaagcaga 420
gtcaacatct gaaggccaag ccggtcgaaa gttatttctc gaaataaatg tgattatgga 480
tataatgagt tgctatattg aaatactcac agcaaaattc ttattaatgc tctatggaat 540

Demographics		Psychiatric		Medical		Social		Family		Treatment		Outcome			
Variable	Mean (SD)	Variable	Mean (SD)	Variable	Mean (SD)	Variable	Mean (SD)	Variable	Mean (SD)	Variable	Mean (SD)	Variable	Mean (SD)		
Age	35.2 (12.5)	Gender	Male 65%	Marital status	Married 45%	Employment	Unemployed 55%	Family size	3.2 (1.5)	Substance use	Alcohol 30%	Medication	Antidepressants 40%	Relapse rate	15%
Education	12.5 (2.1)	Comorbidity	Anxiety 25%	Physical health	Good 60%	Income	\$15,000 (10,000)	Support system	Low 40%	Therapy type	Cognitive 35%	Duration	12 weeks	Quality of life	Improved 70%
Marital status	Single 35%	Personality	Extroverted 50%	Chronic conditions	Hypertension 10%	Insurance	Medicaid 60%	Stress levels	High 55%	Adherence	High 65%	Side effects	Minimal 10%	Satisfaction	High 75%
Employment	Unemployed 45%	History	Previous hospitalization 20%	Medication history	Stable 50%	Family history	Depression 30%	Resilience	Low 45%	Relapse triggers	Stress 40%	Long-term follow-up	18 months	Overall rating	Good 80%
Income	\$12,000 (8,000)	Current symptoms	Mild 30%	Physical activity	Low 40%	Healthcare access	Good 65%	Self-efficacy	Low 40%	Therapy satisfaction	High 70%	Future plans	Continued therapy 50%	Recommendation	Yes 85%
Family size	2.8 (1.2)	Support system	Strong 55%	Stress management	Good 60%	Family support	Low 35%	Therapy engagement	High 75%	Relapse prevention	Effective 60%	Overall health	Improved 70%	Life satisfaction	High 75%
Substance use	Alcohol 25%	Therapy type	Behavioral 30%	Medication adherence	High 70%	Healthcare utilization	Low 30%	Relapse rate	10%	Long-term outcome	Stable 60%	Future research	Needed 90%	Study limitations	Sample size
Medication	Antidepressants 35%	Duration	10 weeks	Side effects	Minimal 10%	Healthcare costs	High 50%	Overall health	Improved 70%	Study conclusion	Positive 80%	Study strengths	Long-term follow-up	Study weaknesses	Generalizability
Relapse rate	12%	Quality of life	Improved 65%	Satisfaction	High 75%	Overall rating	Good 80%	Study limitations	Sample size	Study strengths	Long-term follow-up	Study weaknesses	Generalizability	Study limitations	

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<210> 858
<211> 549
<212> DNA
<213> Ctenocephalides felis
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gtcgactttt	tcaagagctt	ggctcaaccg	atttgaatca	ttctagaaac	attttacttg	300
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tgatagaaag	atgtaaatag	tgatgtggta	tatctatgta	tgtatgccgg	attaatcttt	480
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<210> 859
<211> 549
<212> DNA
<213> Ctenocephalides felis
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agaagatttc	ttaaacagca	gcagcacatt	ggactttgac	gatgaaacaa	gaaaaatccg	300
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gatattcttc	agtactgctg	gaggatacgg	atcaataact	ccttcttacc	ctcatttgga	420
ggaggaatta	tcccacatct	tccaacctct	gagcaactac	cgcaaaaata	tcggcctggg	480
catttggcat	gcgtacgata	cgcagcgaca	agcctcaaca	agangaatct	actaccagaa	540
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<210> 860
<211> 549
<212> DNA
<213> Ctenocephalides felis
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actaaaaaat gccctttaat tttaggaatt ataaaaatgta attaatgtga ttgaataatt 180
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<213> Ctenocephalides felis

<400> 863

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aaccgacaag agagagagag aactagt 87

<210> 864

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 864

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taccacctc 549

<210> 865

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 865

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acggttcgac ggaatcggtt ttcaacggtg tctacgacca gtgtgacgca actgttatct 180
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<210> 866

<211> 549

<212> DNA

<213> Ctenocephalides felis

0901936-12101

<400> 866

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<210> 867

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 867

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tactactgta gttaccgctt tagttgtagg attattttatt attctaataa tgaattacaa 480
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atacathtt 549
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<210> 868

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 868

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aatttatttta tattattaat ggtaatttat caaaattcag atatatatat atatatatat 240
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atcttgtag 549
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<210> 869
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

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 taagcaattc aattcaccaa ttaactgta ttctccgcag aacgttcagg aaacgctcaa 240
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 agaaagacaa cgaaaaggac aaccaccaag tttgaaaaga gttgcctggc caccaccagc 420
 tgaacctgac catcaatcag gaactccaat tttggaacaa gagcctgtct tcgctcagac 480
 gcaacctccg aattattcga cttcaccgca cagcaacagt atcagccgaa cccacgcaag 540
 ccttccgcc 549

<210> 870
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

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 acaataaaaa ggggccatct cacaattgca attatataac tagttactaa gaatttgaat 180
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 ctttggtttg agatatgagc catttgtgat ttctggtagt aggctaggcc agtttgtctg 360
 tatgccaggc agataattat aatgaaatgt aacttcaaag gacttccata ctctgaagaa 420
 tcacgagttt aattttttta tttttttgt acgtgtttgc aataacttct ttaaaattga 480
 cattcaatgt aaaaacagag aatagtctta tataagtatg atttgagtgg ctccctattt 540
 atatgaatt 549

<210> 871
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 871
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 tagtggagct ttacaaagac ttaaacaatt attagtgaac aaacaatgtg aaattaaaga 120
 ctttgcgata tacgaatatt taatgccttt tcttacagaa cattttaaac aattgaattt 180
 tattgaatga atcactctga ttatttgata ttgtgagatt tggaaaacat aaattcacta 240
 aatgtatata tgaatgggac cgtcactttg atagattaac gagaagttat taattatacc 300

gaaaagaaat aattgtgtgt tttcttagta acatttgttt ttcgttctcg tgcttcaactc 360
 gaaataaaatc atctagaaat tttcatgaag cgaactgtgg tgaattgttt tcgtgatatt 420
 tgtgatgaac ttctcgtaag gacatatcac gttgtatttt ctagtgcatt ttgaatctat 480
 ttaaagttat tatatttata gcaagtaggc acatgacgat agcaatgttt attattatac 540
 tcttagaaa 549

<210> 872

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 872

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 tagaatacat cgatttgata aagtgatttg ggatcgtttg ggtgcatctc atatgcatta 180
 attaaatata aggattgaaa gattttgtat agcttttagta gtaaaacagc ttagtttgga 240
 ggcagattat gaattctcat gagaagtttt aatgagggtga cgagtaatca tatagcaagt 300
 attgacatta ttacatatct ctcaaaagga ctaataaggt aatcatctaa ttgataccta 360
 agtgtgaaat aaatttagta tgttgtggtt tagaatttta aaggatccta cttgaaaatt 420
 atgatacaaa ggtgaatgtt gccagtttgt tatatgccgn nttaaatcac gtaatcccac 480
 tccccactct ttaagaacaa tacctcaata ttcattgtta ccgacgataa atagcagcag 540
 ctantcacc 549

<210> 873

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 873

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 aaaggtcagt gtttagcatta tctctatca aacaataaac gaattagtaa atatcgaagc 120
 atacttatta ttatacactt agacttctca atttttaag aactcatcat ctgtttgttt 180
 attataacct acaaacctca aacatgtctg aagaaacaga ttttaacaaa acaattaaaa 240
 cggaaccgat cgatgattat cctcaagtga aacaggaatt cgatgattgt gaaaatacat 300
 cagatttgta tatggatgat gatatatgtc tgcagcaatt tgaaaaatct gaggttacia 360
 ttgacgagga aataaaacaa gagacgattg atgaccaaga tcatgtgact agtaciaaca 420
 aactgttcag atgaaaatc ttatattgtg atgaagaggc agtaattcaa gnaattagt 480
 gtagtacgaa caaattattg gaaaagttca ggcaaaangg aaccactaat aattggaacc 540
 gnttctgtn 549

<210> 874

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 874

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agtacgggat gtttcaataa tttgtottaa ggcacaatgc catgagtcac tagtttaaaa 60
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gggctcgaga actgaagtaa atatttttct taaactttca gcttggttac ggaaatttat 180
attagccaaa ttgccaaatt taataactta gtaaccaatt tgataattta cgttcggaga 240
gggaggcaag gcaaaataat aaattttaat aatcgggttat ttcaacccaa attttgcctt 300
gcaatcgtat tatgttttgt taattatatt tcttgaaata taaaaatgtt ggtaaaaaaa 360
tttgattaca ttgtatagaa tttttttctc actatccaaa ttttgccgcc caaaaaattt 420
gccgcctggc agtagcccg attgccctct gaaatccagc ctggatgngg atatgnatat 480
atatatatat atatatatat atatatatat gaaatgcggn gcccatatat natngggttc 540
attacaaaa                                     549

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<210> 875

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 875

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cgtttctcat ttctgtttct tttacaaacc gtgtgctcga tttatgtagt ttttgcccaa 120
gtactactgt ctaagacgca cgccggatat atttcatctc ataatttta tttgcatcat 180
ttggtgcccc ctgttatata aaactaaata atattatttc tttgactaag caagagttca 240
caattgaatg gctggccgct gctgtgttat tttatttcga gacttattgt gcaggaaatc 300
aagatgaaat cacatggagg ccacaatata tcatatcaag ttgttgagta tcgaatggcc 360
aaatatcgag tgaaaattgc acaccgctcc ttcaccggga attgctctga aaataattta 420
tgaagtcttt cactactgct gtctgacact gctcttcacc aggaatcttt ccagaacatt 480
ttaccagctt ttnactactg nttnttttca ctgncccttc ccagaatcgt ctgaaatatt 540
taaaaaagt                                     549

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<210> 876

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 876

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gatgaagtga atacacaact tgataatagc aagaagttat ggggtataga gatattgcca 60
aaaacaaaaa ataatgtcag aaagaatttt gaaaatgcct taggaattgt aacactgaca 120
tttttatctt gtatagtatt aagaaagggtg ttttaagattt tgtaagctaa tatagccata 180
tatttccata ccttgaagggt tattttattat aatataattt atatcgttag tcaaacttat 240
gtatacagat aaatttcaca ttatctatta cattttgttt tgttttgtat tatagtcaca 300
tgtgaaaaat atataatatt aaatttgatt tcattttgcc tgttttattgg ttttgcaaaa 360
aaatcctgta cctaaaatca taatagggtt cgaaatcaca tacttagctt agagtaatga 420
acttattaaa gaaagaaaaa agctgngtta cttatgggct aatatacgng ngcaaatgta 480
aancccaaaa agntttgctg gaacaattgg ggtgatgnat catgtataaa natatagttt 540
tgaaaaancn                                     549

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<210> 877
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 877
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 cgattaaata caataagctg gtacacaatt cagtacttca aaaataagat gaataaatga 180
 actgggttaa aatgagaagt aaattgtgac tctttgaata tgtttacgac cgagtgtc 240
 ccccgttcag tcgatgtgct catcttaaaa tctgctaatt gctataaatt aagttaacta 300
 tagtatgaaa gatctaaaga gttacaaata agagataatg tctgtcgtgg gagaaagacc 360
 atcatcaatg atgggtgtcat gacatcatct ggtattggaa atccaagtgt ttaccatgcc 420
 ctatagtgat atttttagaa ttttttgctt gggggctcct acgatgccaa taatatctgt 480
 ctaaatgaaa cattcccagt catcattttt atgaatgggt aattaatgggt ataaangatt 540
 tatcttcta 549

<210> 878
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 878
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 taatgttatc agtatgtaca agcatagctc gagcaaatgc aatatcaacg aatttaaata 120
 aattaagtaa taagagatct ttccatgaat catgtgttac ttttgctgct agaaaaaggt 180
 accagagaaa aggcacgaaa gaagaaagga gttaaagtcg aagaaaaaaa agttggtttc 240
 atcccacata atattcgtgc caaaaataag ttagccgtga gcacaataga caagcatttc 300
 aatgatagct acaaacatgt ttcaagcgac aatgttttca tctctaagtt ttacaaaatg 360
 aaagtttacg attttgcaga agcaatagct gtcataggc aaacacatca tcttacgtgt 420
 acaatgttcc agatgcaa ataaatgtta aaattgacta aacatggctg gtggaaaagt 480
 acccgattat ggataatttc acgantgcat gtaccctgc ttcgtccaat gtgaaagact 540
 ntentgac 549

<210> 879
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 879
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 tgaagtcaac attaatgtaa atagttatta gtctaaaact catgaaaaag tatagggttc 180
 ccattatctg catcaattct ataaatggta tggaaaatga agctttaaaa tgattgagtc 240
 aaatttgcac tgtaaaaaag aaatgtcgtc ttacatccat atcttcatat ttgacaaaac 300

gatatttttt aaagtaaact ttaagcttat aaaaatctta aatacatgca tatttatata 360
 tatatatgca caggcaaact ctattttgct atgtcttctc tttggtgctt ttgggaaact 420
 tgntgaaatt ttatttaata acaatgagag tatgcaatta atttccttgc catttatgtt 480
 ttacatggat gagtttgaga ctaattaact tcatttttta atagtgatat agtcgcaata 540
 tatttggat 549

<210> 880

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 880

acattatcaa tcataataga tagtagtaat gagtatagta atatgatgtt ttctcagcat 60
 tgaatgagtt ttgtcacaat ccaaaatacg caatatttct aaatcgatta aaaacacgctc 120
 aactgttga gaaaataata tattgactta ctcatctttt ggaacaagtt ttaactctaa 180
 ttctgtgcag ttttctacct cagaactgaa ctaattttcg agtattaata gatatacggt 240
 aaattatcac aatataaacg tattagaaat atgttcatgt ttttaatttt ctttaagaat 300
 tagttcaca ttaattagga agatcgctcg ccataaccta atttatttag ctgacaaaatt 360
 taaagtttct tgcactccct tgaaatttgt atatgtttac aattttgcaa aacggagatn 420
 tcgtacacaa tttgtttaga aataagattn tagtatggcg cgtcctaccg agaattcctn 480
 gggcagtgag ggaaaaagng tttnaanggt aaactatttt agggtaaaag acgaggtctc 540
 nttaancca 549

<210> 881

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 881

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 aggaaaatgc tgatatattt ccagatactt catataaggt aatttcaatg cctatgctat 180
 cccaattgac gcctattgag gctgcagaaa tggacgtgga cgatccactc ccattgttgc 240
 cattagattc cctgttagcc tgcacttctg atacacatcc tggtcgggcc gtagaagtgc 300
 aagatgctca tcagggtatg cagggttag gaatggcaga agatgaatta gctggattat 360
 tactatcaag tggatgggat gaatcacaac tagaattact agattcatta ctggattcac 420
 tttaaagaag aattagaaat tactcact taaaggtaag caatagtctt gntggtaagc 480
 ctacaagaaa aagactttat ttggtnaatt ttatctaaga tgacgagccc aaaaatttgg 540
 cattttttg 549

<210> 882

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 882

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gttnaaatgg cgcctattct aaaagaagta aagtctcgta aaccttacat actcttgtca 60
gctcgtagga agcgtgaaat agcacatgaa gctaaaaagg aatttttaca ataccttaat 120
gccaagcatc cactgtttac tgagaaggat ttggatgta ccatttgtgg ctccagtaca 180
agtgttgaag acgtcgagaa gaatttatat cacacaacac gtgtaaacgt caaacatcaa 240
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gtagaagaac cttcttacac acgtgtaaac gttaaacgtc aaagaccttt taatagcatt 360
aatgaagaac aaagctttgt gctttgtgat aatgaagaaa atgtgggaga accttcttcc 420
ctctcacctt tgcaatgcga actacagaat ctgttaatac ccaaactatg acgccagagt 480
gtcaactaaa ttgtggaaat tctgaggcgc atggcataag aatgaactcc agtagatcta 540
cacatatgc
549

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<210> 883

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 883

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gttgggcgtt gtgaggttat cgtgtgcctt gaatcgctcg aatctaagct ccatcggtgt 60
aattatttgc ataactccca ccccgactgg gacatctcga gagtcgggaa gcccctggca 120
aaggctacgg cgattttgtt taaatcagtg tctacagttg aacgggtcca cttggacggg 180
aaacagtggt catacgagat tattatata ttaaaattga ttgaaacagt gacaaagtga 240
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tgcaactaat caaaataatt tgtcggcaat tgtaaaatac ctaagtgtcg ataagtctat 480
atgtgatcag gctaaagcct tgaaaaagaa tcttagtagg aatattagta ttcgtattaa 540
ttaattaat
549

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<210> 884

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 884

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agattctaac gataatcttt tattttgtaa tatgtctgaa gaaggaacaa cgagaagaac 180
tacgaggtcg cttgccaggc ggctgagtag tgattcaata tcgcctccag ctgcagggac 240
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accgaaagca gttagcactc gtaaatcccg aagattaagt actgacttaa atttagaaga 360
acctggaagc agaccatcaa cacctatct aactgaaagg cgtcgttctc gccgactaag 420
tattgcttag atgaacaacg cccacaatct gtatcaactc tcccattggt ggagttatac 480
aagaagagga agacatcaat attttagcaa tgaaagatga tataaataat aaatccggta 540
tgngtgtgn
549

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<210> 885
 <211> 496
 <212> DNA
 <213> Ctenocephalides felis

<400> 885
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 tgctaaacca cggaagaac ccactgagaa ataagttatc aagttttaac attaattatt 120
 aaccaccata tagaatacca tcttgaatca tgtaataatt tttcgattaa aaattctgca 180
 aaactcataa caggcgtcga taatcttact cttgcaataa attctttaac tgatatataa 240
 aatgtatcaa gttttgtaaa agaaaaatca ataattattg atttacagaa taaaatattt 300
 attttgttta aaaattgact aatactttgt aataatatgt aattcttata tatatagatt 360
 aaagagttgt tgtagtggtc ttttgttttc aaatagtttt acactaatat atttaataca 420
 aaacgcttta caaattttac aataattgat gaaaactatt tgagatttta ttctcgaagt 480
 acaacttatg tattaat 496

<210> 886
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 886
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 tattgaacga cagccattga ttcaaaatga tggaactgga agccttagga atcaaggatc 120
 ctatacgga ggttctcaaa ccacgacggt ttccctata ggtcctgatg agttgccacc 180
 gtcttaccag ggaagttcgg ccagtggcgt gccatgggtc acttgacagg tgtgtcaggc 240
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 agccacacct atccgcaatg caccaccagg caagaagtac gttcgatgtc catgcaactg 360
 tttattgatt tgcaaaagtt catctcaaag gatagcttgt ccgagaccaa attgcaaacg 420
 cataataaat ttagcaccta gtctgtgtac accacctgtc ctacaggtgg aaattttcgt 480
 gccaggaatg tgcagggttt gtgtgctatt gtggggancg tttttttcaa caccctaaca 540
 atgcctcgc 549

<210> 887
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 887
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 taatttggtc tgtttttata atacatttta gataataatt attggtgaac tcaatcttgc 180
 atatacgccg ctaatgaatt aaaccagcag gcatataatt tttgtactta aatattttata 240
 taactaaaac tgatacgggt tacgaaaaac acataactat attatttatg tttctagacc 300
 cgcatagaatt aaaacgaaaa cggcaaaaaa ttgacgggga tccaaaacat ctttttatggc 360

aactgcaggg tcaaaatcct tctacgagta agtcattttc aacttttatt ttttttatca 420
gcaaatacaaa cagggttcaa tgtcagggtga cgggtgaatca cggggtggat gaataataaaa 480
actcatatca tacgcttatt acatataaca ctaccatttt catattatca gtaattttct 540
aggagnata 549

<210> 888

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 888

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attttaatat agcgatttga atagttttta tttatttgaa tattgttcag agtgatactt 120
tttatatttg ctgtaataaaa aatgattatt atgataactt atattatgaa agggaaaata 180
tattttaaaact ttttaattgat tacccaagag gatattgatt tgtatatatc tacttgaata 240
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tagcaaaaac gtcaagatgt ctaattacgt gttgaaagtc aaatcaaaag aaggacagca 360
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ttgacatcga tatctaaacc aatttgcaaa ttttatcggg ttttccgcct aaagcattag 480
atztatctga tnagagtaag actttaaaagg ngagtgattt nattcaggag atctgtattg 540
tgaaaaaat 549

<210> 889

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 889

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gtttggcatc agctcagttc cagaatggac gcatcttaga accaccagta cctgcactct 120
gcgcccaaag gacgatacac gaacgtagcc cagacggcaa aggatacttc ttctcgtggc 180
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aacgttgcat ggacagtgtc agtttagaaa ccagtgccga aaatgaatgg atcaagcaaa 300
gaattgtcaa tggaaatgtc aaatacatct ggaccagcgg tcgtctatgt gacttcaagg 360
gttgtagaccg accagattta caacctgttt ccgtaaatgg tggttctgga ccgctgaatt 420
gcaaaaactt gcccaaccac agacagacaa caaaacgact ggtctgaagg agtggtattg 480
tcttctcac cagatacaag aattgaacaa ggtggacaac cgaaactgtt tgcagtttga 540
cactttaca 549

<210> 890

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 890

cgtgggataa aaaatgaaat tatcaattat tttacttttt gtggcttgta tagccttggc 60
 ttcggctgca aattttaaac aaggaaggaa agctaaaaga tcgggtaatt tggatgatgaa 120
 aaaatcacca agaggttctg aaaataatat ttttaacact ggttttgtga aggattccat 180
 cgatttcgga gcaaagactt taattcgtgc cataaattta gcagaaccct tagttcgtga 240
 tagttttgac ctaggaaaag atgtaaccct acgtctgac cgaggagcac caattgacca 300
 acatggaaga gcttctgatt ctgaactttt tgaaagattg gatgaacttg tccagaatat 360
 aggaaaagct tttgaagccc tatttgataa ttctgaaaca aatgcgagga aaggacctcc 420
 aacggaggct agggttccat actaataata atagtaaagg actaagggtg agaaaaaatt 480
 ttttgagggc aaaatggagg agaaggatgt gtgaatttga tgtctcaata taaaaaatg 540
 catnaatag 549

<210> 891

<211> 548

<212> DNA

<213> Ctenocephalides felis

<400> 891

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 tattttgatt tttggatttt tttaaaaaaa aattctctct ccctaaaaac atcacctgat 120
 taatggacgc atcctatttg tattccttat ataaaaataa aaaatgtgaa atttagatat 180
 actgaatgat tactcgtacc aagagtcgaa acatataaat aaataatata aaaatcaatt 240
 taccattttc aaatttgatg aattggttgc aaactatacc aaattcctca attccaatca 300
 tattcatata caaaaataacc tatcaaattt tccgattcat ttaaaaccga ttacaatcaa 360
 ttccattagg caccagtatt tataaataaa attttgcgca tatgtgtgaa catatattca 420
 ttattttatt agtctgagaa atagatgttg actattcgag agagcagcga aatgtcgata 480
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 taangcct 548

<210> 892

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 892

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 aatcttacaa attaatctaa acaaaaatgt aacaatattg cttaatttaa ataattcggt 120
 tattgttata ttgaatccac aaatatgaat tgttgattat tagcatcggt tatttttgtt 180
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 acatagtgtg atacttgttt ttatttttaa tacattacaa actaaatgta gttcatctat 300
 gatttacatg aaaaaaatt agttattatt tgtagtggt taagacattt tacgcaatat 360
 ggcagtaaat aaatgcgcac actaaaaatt attattaata tttttatagg aacgaaagtc 420
 tataattcta tacactacat cgctttgtgc aattgaaata atatttttca ttatattgna 480
 tgaatttagt atatcaaac atttaaaatg gttatatgta tacaggtnca ttattgtaat 540
 aatgagaag 549

<210> 893
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 893
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 ttaacaaacc cttttccgta atattgacgg aacctgccta agtgaagcaa aggacgatat 120
 cggttgtcgt tggtagtgtg gtgaaactat aaaattgtga ataaaactta aaacatcacc 180
 aaaaataatc cacacacttg cagtaaaca attattattt gtctctatag acagaaccaa 240
 atagaagaaa aactcagctg ccaaatcaag attgacataa ctgtcaatta tttttatggt 300
 gatcatttat taatatatca attttgactt tcatcgattc tatctcggcc ccccttccca 360
 ccatgacgct ttcggccaac agcaatgcta ccaatcgctt cgggtcgcag cagggacgta 420
 gcctcaatta gccgccgtgc gaatacaggc cggcncagag gatatgcgtg cgcaagcagt 480
 caaacgttgc aaaatcaaag tgacggtgca agagacagct gnagaatcta ttgacagaga 540
 tacgcgcat 549

<210> 894
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 894
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 taaaaaataa aattaggatt ttttattaat atgaaataat aaataatcaa ataaatttag 120
 tgtaaaataa aaaagtgtgc atgtgtcatt cttgattaat attcaacgca attaaagatc 180
 aattttgaat gtatcctctc aaaaattggt gtatgaggag atgactagca aattttttat 240
 aaatgtcgtg gataaatgag tttcgaaaat ttattttgga ttttataaga actgttttcg 300
 aattataata gaggggaagag ctagaaatcc acatatcaaa attttaaatg gacctgttat 360
 agaagaaaat gaaactcaac aaaggaacca tgaaaaaacc ngagttctct acaattgccc 420
 ctgtgtcgaa gaagacgatg atcgagtata tctaatttga atcagatcta cacaaatgag 480
 tggccatcct gcccatTTta tagactcaga caagcggagg gcccttggan ggcagatgaa 540
 attcccant 549

<210> 895
 <211> 92
 <212> DNA
 <213> Ctenocephalides felis

<400> 895
 taaaatcatt tccttttgat aaatcaaagc tcttgattaa catttcttgt attaatTTtc 60
 gcttcttgta ttcagctttc atatttgccg gt 92

<210> 896
 <211> 386

<212> DNA

<213> Ctenocephalides felis

<400> 896

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atatatctta catcgaatct aataacaata aagagttatt aattttcatg tcgatgtttt 60
agaaaatgat tcagtagcaa cttctgaatt ttctttgtaa ttgataatac tttctcaaag 120
tataattgca tttcacaaca cacgacggaa atatgggttat ggtccatattg aagcaatgct 180
cgttcttcta tccacttgct tctgataaat gttcgggtata aagaatgcaa tccactccaca 240
tgctatcaga gatgttcctg atattaaaaa tgttaaatcg caattataat ctagaattat 300
tcctacaaca ttgcttccaa caacacttcc taatcgaccc atcattaaag atatacatat 360
tgccattgcc ctgagttgtg taaggt 386
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<210> 897

<211> 105

<212> DNA

<213> Ctenocephalides felis

<400> 897

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aatataattc caaaggacaa atcgactaca gctcttgcaa tatgt 105
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<210> 898

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 898

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aagttttcgc agtttacaaa tccagaagag ataccannng caacttcaan atcagatcaa 60
tgagtgcagt tcanaattaa gaatgtctag ttcagagcta acaaagctgc tancgtcatt 120
atcaagcata ttgagcgatc aatcatatat ccaacagntt cncgatatca acgataccat 180
cactgagatg tcagaagttg aaaattggaa gtcacaaaca aatgccangt catcaangaa 240
tggcacgtca naaataantn tattaaattc tttttaaaat ttatgtatta ntaaattgtg 300
atgtctaattg cttcatatta ntattaagtt ttcaaatttt tatgttnttt tttgtactgt 360
atnaagagtt tacttanttt tcntagtttg nnatacctgg gtaatttgta cctattnang 420
aagcttaagc tcgnngaaaa ctanncccta ccnntatcag tgctangtat ttnacnca 480
annataacan gcttngag 498
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<210> 899

<211> 359

<212> DNA

<213> Ctenocephalides felis

<400> 899

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cgtcaagtcc aatccaagag tggaaacttt ttcaggaaag ctactagaga ggtgtcattt 60
ccaccagtgg gatcgagaaa taatcgacaa attagctgtg ttcgtgccct ggaccaatat 120
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gtaaatggcc aaggaggcta tgccactctt gtcaatggtg gagttggctg gaaaaatgta 180
actttactcc tatcttctca gactggcaaa ggatttaact tcttagttga aatttgggga 240
tattagatta gaaatataat gaaaaatgta atatagaaaa aaaattaaat atacaatagt 300
attttaaatt tggcacacat ctatctatgc atccataaat aaagggtata tacagcatt 359

<210> 900

<211> 353

<212> DNA

<213> Ctenocephalides felis

<400> 900

tgataaattg cctgcaagaa tgagtttcag ggaacgaaaa gaatcggcca aatgcatgca 60
aaaggttgca ttaaataaac aactagcagc agccagagtt tcaactgatg ttggcattaa 120
agtaggagaa gccctcagga atgtagtga acttcgttta gatttgggaa aatgttcttc 180
agacaatttg aataaatggg aatccagatt ggaagaaatt aatgatgttg tggaaaattg 240
catcgtgtga aattgtaact tgaaataatt tttcttaact attagtttta tagatgaaca 300
aatacataat ctaataaacc agcaagtga aaaaaaaaaa aaaaaaaaaa aaa 353

<210> 901

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 901

aagttttcgc agtttacaaa tccagaagag ataccagagc aacttcaaca tcagatcaat 60
gagtgcagtt cacaattaag aatgtctagt tcagagctaa caaagctgct atcgtcatta 120
tcaagcatat tgagcgatca atcatatata caacagcttc tcgatatcaa cgataccatc 180
actgagatgt cagaagttga aaattgaaag tcatcaacaa ntgccatgtc atcaaagaat 240
ggcacgtcat aaataatttt attaaattct ttttaaaatt tatgtattat taaattgtaa 300
tgtctaattgc ttcataattag tattaagttt tcaaattttt atgttttttt ttttgtattg 360
tattaatagt ttacttattt ttcttatttt gatataacct gtaatttgn cttanaaaga 420
agcttaagct cgtncnaaac tatctttata tttatcaatg cctangtatt ttaagnncan 480
nantanaatg ctttgann 498

<210> 902

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 902

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agntanatgt aatttcataa agcttctata tttacanant ttanataatc agaaattact 120
atagttaatg acantttgtt tgtgcncnt acataaaaata caattttata cattttaatt 180
tttatacata ttttttaaan ntaantgcac agatcatttg ngatatttatt atattaattg 240
actactttat ganaatttga atcctaatta gtctattcaa gattgttttc ctggtttaag 300

ccttacttan caatctcact tttgcattct tcgccgggtg gcgtgggtan gcancgcaac 360
 tccgttttat caaagtgcaa gccanttga caatcanaag ntttatttgc canttggttg 420
 ttaaccaagn nnccattgnt aacanttttt acantctctt cgatnngaaa aaaacgtttt 480
 cacctttgca tgcagttc 498

<210> 903
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 903
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 aactattatt cttaaattaa agggaaattt tacatcagta cattcaacat gaatcaattc 120
 taaaattatg tgaataacca aaatttttaa ccattaacac aaatattttt tattccact 180
 taacttatta cttattaaaa tattacttgg caagtatttt tatatttttg tattttttta 240
 ggtatattat aaagacgcct ttagttgttg ccttatgaat aaaatacata ttataatac 300
 attcacatat tacatactaa actattgaga agacttagac gatttaatgg aattaatatg 360
 aaggaattta ttaattttaa tttataaat ataaaaaatt ttagtgcttt ttttangata 420
 tcctangtta tattanaatt cgttttcatt tacagatgtg gcatatangt atantttttg 480
 tnanttaatt tttagttatt 500

<210> 904
 <211> 440
 <212> DNA
 <213> Ctenocephalides felis

<400> 904
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 ttccaaaaat ttctaagtta atttaattaa ttttttaatt atttttattc agatgttgtc 180
 acacaaaact atttatatat catcatattt antttgtata tatttttctat gataaacctg 240
 taaattattt ataaaaagaa gccaaaaaaa agaatttgta gtgaaaaaat atttcaaatt 300
 tgaaacacaa actgaatgtt ctgaatgtta atttatatgtg attaaaataa taaacattta 360
 ttgaaatatt aaaaaannnc aatacaaatt atggtagata gtagaancca anngcataan 420
 aannancna aaaaagcttg 440

<210> 905
 <211> 494
 <212> DNA
 <213> Ctenocephalides felis

<400> 905
 tttttttttt ttttnntttt ttttttgaac ggcccaaacg atttattttt antaaaaaga 60
 tacatgtaat ttcataaagc ntctatatatt ananatttta aataatcagn cattacnatt 120
 gttnacgaca ttttgtntgt gctccttaca tngaatacaa ttttanacat ttttaattttt 180

atncatattt tttatatatta attgcacaga tcatttgtgt atttantata ttaattgact 240
 actttatgat aatttgaatc cnaattaatc tattcaagat tgnnttcctg gnttaagcct 300
 tacttagcaa nncactttt gcattcttcg ccgggtggcg tgggtatgca tcgcancncc 360
 gttttatcaa antgcanccc gatttggnc aacataatgt nttatttncc ncntgtngnn 420
 nccccagaa ncattgntca nacttttnac aancctctcn atngggaaaa acctttcact 480
 tntgcatgca cttc 494

<210> 906

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 906

ggaagcacct taggctgtgc aggacatgta actgtatagc attttgtgcc cagagccata 60
 ggtccgcaat tatgacgtaa cggatcatat gcaaaatttg cggggcaata atattgggtt 120
 cctatactat tttcgtcaca ataataatag ctttgacaat catttatatt tggataaaat 180
 ctcatgtgtg acggacattt gaaaccttgt actttgcana ctgtactttc tttagtgtgt 240
 cactgtatag atccactttg atcagcgcac acttgatctg ggctacagga ttccttaacc 300
 ggatctgctc ctatttccgg acaatactgc atttcgggtg aactgcacga attcacgcaa 360
 ctaaatttta cttttttaca tttttgctcg ggtttcggta cangtgtacg ttcangagta 420
 gtactactcc tgggtcgggc tcatccaatg atgcaaatac ttctttatatt actgttaaan 480
 gcgttccgtc gacattaa 498

<210> 907

<211> 215

<212> DNA

<213> Ctenocephalides felis

<400> 907

agactgaccc tggggccagg cgtttgctta acagtgacgt taaagacgac caaccacagt 60
 caacgaatga tgaaataagc tcatccacaa ctgctccaag ttcaaacgtg aatgaaagca 120
 atggaaacct caccgaatca caacccttaa gccaaaatac ttcaacaaat actccattag 180
 aaacatcaaa tacctcacta gcagaaagca gcagt 215

<210> 908

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 908

taccttttgc taccgatgct caagggcgat aacggaccca cagcctggcg tccaaaatgc 60
 ttctctgtcc gcaacgacat agtcgttttg caagatttat ccatgtataa ttttcgccat 120
 tcgtatccaa aattctcttt ggatcttgat catgttaaag ttgctttaac ggcattggct 180
 cgtatgcatg caagttgcat tatctacgag aagaaaaaaa attgttgcatt ggggagagtt 240
 tacaaagatc ttatgttcga gactatggcc aacaataatc aatggtggag aactggtgag 300

gatactgctt tagcaattgc tgaggaatct gagaaattcg gcaaataac cgaataccat 360
 tccatgggtcc aggagaagtt aattgatttc ctgagattgg catgggtctat ggtaaaacca 420
 tcgcgcatctt ataagaatgt ggtatgccac cgcgatacgc gcaatcaciaa ttgatgttc 480
 aaatataatt caactggt 498

<210> 909

<211> 245

<212> DNA

<213> Ctenocephalides felis

<400> 909

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 agacaaaaac ttttgtggac cttcagatct atctgtgcgt tgcaaggaa tagatgtatg 180
 aaataaactt cccctaaata atgaagttat tttgctattg attagcataa gtttaagcact 240
 ctgct 245

<210> 910

<211> 386

<212> DNA

<213> Ctenocephalides felis

<400> 910

cctacacaac tcagggcaat ggcagtatgt atatctttaa tgatgggtcg attaggaagt 60
 gttgttgga gcaatgttgt aggaataatt ctagattata attgcgattt aacattttta 120
 atatcaggaa catctctgat agcatgtgga gtgattgcat tctttataacc gaacattttat 180
 cagaagcaag tggatagaag aacgagcatt gcttcatatg gaccataacc atatttccgt 240
 cgtgtgttgt gaaatgcaat tatactttga gaaagtatta tcgattacaa agaaaattca 300
 gaagttgcta ctgaatcatt ttctaaaaca tcgacatgaa aattaataac tcnttantgt 360
 tattagattc natgtaagat atatgt 386

<210> 911

<211> 66

<212> DNA

<213> Ctenocephalides felis

<400> 911

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<210> 912

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 912

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catgcaaaag tgaaaacggt ttttccgac gaagagattg taaaaaatat tatcaatggt 120
tcttggttaa caacaaatgg caaataaaac attatgattg tccaaatggc ttgcactttg 180
ataaaacgga gttgcgatgc ataccacgc caccggcga agaatgcaaa agtgagattg 240
ctaagtaagg cttaaaccag gaaaacaatc ttgaatagac taattaggat tcaaattatc 300
ataaagtagt caattaatat aataaataca caaatgatct gtgcaattaa atataaaaaa 360
tatgtataaa aattaaaatg tataaaattg tattttatgt aaggagcaca aacaaaatgt 420
cattaactat agtaatttct gattatttaa aatatataaa tatagaagct ttatgaaact 480
aaaaaaaann nanannann 498

<210> 913

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 913

caagttatct ctgaattcct tcacggctcc tcttgcgcat ttgccgactt cacgaaccaa 60
gttgcccaat tgggaccagg tttctttgaa agccttgcc aagtccttgg ctcccttcacg 120
ggcagcttga aggacatctt tcaagcaagc tctggcttca tcgacatcgg ctgcggtaac 180
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ggccaagcca ttttggcgaa cttggttgaa ttcctcacgt ttatcatccc tgcaagcctt 300
gaccttagca cgagcttctt gtgcaaaacc tagagctttt tgggtgttggc ctttaaggca 360
ttcctttgcg gcttcactca cttttttgct aagtttctt tcaacttctt tgttgaacct 420
ttccaaatct ctatcgactt cangggcaaa tccttgttt tcgaattcag cagcaatcat 480
ttaattttgc tatcntgg 498

<210> 914

<211> 123

<212> DNA

<213> Ctenocephalides felis

<400> 914

tcttatgatg tagtcttaaa taaatgacat tatttctatt tcataaaatg ttactaagat 60
tgctcatatt gggttagaaga tttaaaaata aatcagcagc aagataaatg aattctgtaa 120
tgc 123

<210> 915

<211> 190

<212> DNA

<213> Ctenocephalides felis

<400> 915

aatgtcattt gttttcaaact ccgtagctat tttagctgct tcagctgatg attttgccac 60

accaaagtga ggtgtcggtg tgccaccttc ctgcaaatg ctgaaggata tatgctcaa 120
gacattgagc tttcgtgttt gggtgttttg ccattggtgt acggataaaa tcttaattcc 180
atTTTTTcgt 190

<210> 916
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 916
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aaggctcaac agaaaatcat tattaatatt acatattttt atagtgtttt cattgatata 120
accttacatc tatttttttaa ttcattttaat acctagtgtc aaataaaaaa gttatgcata 180
taagtgttaa caattttaa gcttacatat aggacattta cttgaggcca agttatattg 240
acaatattca gttgatgcac gaataaaata aaatgtttta attataatca ttttattcgt 300
acaacgattt tataacaatca atctgaagct acaagctaga attatataaa tacattttta 360
tactatacaa atatncagaa atatttcac ctcacgtcc tacacaaatn canoctaaaa 420
tgtcttaca ggacngtcat atatcacgaa aggaatnaaa attangaaag ggattaatta 480
anactacatt aataatacat 500

<210> 917
<211> 95
<212> DNA
<213> Ctenocephalides felis

<400> 917
tacgagtgc cattaaacgc tcaaggtgta ttcgacgtgg cccgatatgc ttgtgcagct 60
gagttatatt tcaacagcgt tctgcagcag tgcgt 95

<210> 918
<211> 68
<212> DNA
<213> Ctenocephalides felis

<400> 918
gaaaggacca ttaatttata ataattattt taatttgaat aaaattaaaa aaaaaaaaaa 60
aaaaaaaaa 68

<210> 919
<211> 498
<212> DNA
<213> Ctenocephalides felis

<400> 919

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 gggttatattt ctttttacag ttatagataa ttctataata agtattgttt gaggtaag 120
 tcagtttcta ttcttggttt tgtgtgctgt cgatgtcgat atcgatagag ccgcagacct 180
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 ctttatcaag gtcttgatc atgaaaacag atcggttgcg aaataactgg catagcattc 300
 tgacacaaaa atactagaat acctactcaa aacgtctttt atgaccgtgc gatgaccttt 360
 gaaacgaacg ttcattagta tccgtatatc cgattgattt acttttaaca cgtttaatta 420
 ctacagaagt aatatcaaac gaacggctnt cgctnaagtt tatatgaagt aagaattgta 480
 acaagcaaag aagtataa 498

<210> 920

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 920

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 acatttttagt tgcatatata agcttaaaat ataaatatat attatnaatt ttagttaaaa 120
 aatctaaaatg ctaggttaaag aacctantac cgaagtantt atggattcga atataatcna 180
 agaaatanat cttaaaggcat ttgtatcatt cctgcnataa tttgtantga aataggnaat 240
 aaatattcca caacanant aatgtattaa naaacattta cgttttgtca nccattcata 300
 acaatctana tanttcaaaa taataaattt tacaggacca aatacatnaa gcggtcattt 360
 ntgtngnant gcacnaggaa acacacatat tcaattattg cgccntgttn ctataataat 420
 ttttgngnnc nttntgcnac ttattaanca anatttgnga gatantattt ttcgtttctt 480
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<210> 921

<211> 173

<212> DNA

<213> Ctenocephalides felis

<400> 921

tttcttttagt ggtgcactgt agatatccac tttgatcagc gcacacttga tctgggctac 60
 aggattcctt aaccgatct gctcctattt ccggacaata ctgcatttcg ggtgaactgc 120
 acgaattcac gcaactaaat tttacttttt tacatttttg ctcgggtttc ggt 173

<210> 922

<211> 217

<212> DNA

<213> Ctenocephalides felis

<400> 922

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 tgggttcttg tcccttcttt aagtttattt cctatcctaa agtggttaact attactacct 120
 aaactgcgat gatattttgt atgaatgatg ttgacatgat gtccgaagac gttggctaag 180

gttgcccaat tgggaccagg tttctttgag tgccttggcc aagtcttttg ctcccttctg 120
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aacgcactcc ttggcttgtg ctctgagggc ttggcggttc tccctggctt ctctccaggc 240
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gaccttggca cgggcttctt gtgcgtagcc tagagctttt tgggtgttggc ctttaaggca 360
ttcctttgcg gcttttttgc taagtttctt ttcaacttct ttgttgaact ctccaaatct 420
ctatcgac 428

<210> 927

<211> 118

<212> DNA

<213> Ctenocephalides felis

<400> 927

catcacggag aagaactctt cggctacgga atatcttcat tggaggcgcg ttgttgggtgc 60
acgcagcatt aacaagggtc ttgcaattca gcataatgac cagaagaaaa atacaggt 118

<210> 928

<211> 489

<212> DNA

<213> Ctenocephalides felis

<400> 928

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tgcatgtgtc ctggtcctgg tggcggtggt ggaggtgcag ctgtcgcaa gcactcggat 120
aaaggcgctt gcacgcattg tgggtaaagc gcgctgaagt atgtctgtcc ggcgcatgta 180
aaacgaccca cgttgaaatt tctccagag agtctcacac attcaaaata tactttgcat 240
gttttgtctg ctggatctgc aaatgagccg ctctgcacgc agctgtatat gggcgggcggc 300
gtaggtggtt gccaaggcgc tggaggattt cttaggcact ccgaaaggga agcgaccaca 360
cattgctgat agaagtaagt agaaccaagg acaattgtaa cgcgctacac tgaatcctcc 420
gcctgctttc aaagcacatt tgtagtatcc tttgcaagtg ctgtcatagg gatctataaa 480
catcccttc 489

<210> 929

<211> 409

<212> DNA

<213> Ctenocephalides felis

<400> 929

gactcgtaat tatatattaa gtcagtttgg agaacatact aaaaacacta atgatataat 60
cgtaagtgaaggaaattct caataaatgg tgaaattcta gctagtgcaa aggttaattt 120
aggtttggct atgtcacagg aaaagttttt aagtattaat aatttcattt tgatattaca 180
agaaatatta ttatctgtgt tgtttaatga tgataaaggg aatcacattg tatagatttt 240
caggaactgt caaatgacag gcaaagtata atcatgatta atgataaaat tctaaaaagc 300
aaagggataa aacaccctta atgtgcactt gcttatttgc tttgactatt ctgaaagaga 360

atgcggtaaa attctgttcc tggatcatcat cgttccc

217

<210> 923

<211> 269

<212> DNA

<213> Ctenocephalides felis

<400> 923

agatctacta atgccgcgtt taccactgtc acagcaattc cgcaaaccag caaccacaaa 60
tataaatatg atgctattgt taaatgttca ataaatgcac aaattattcc acaaatcccg 120
catgagacca tcacgaatac aagaattgga agctttccca cagagttaat aatagcacct 180
attatgggaa atccaatcgc atatccagct tccaacatta aagaatgcat aaatgcctgt 240
tcttccattg tgtctttaca ctgcgtcgt 269

<210> 924

<211> 303

<212> DNA

<213> Ctenocephalides felis

<400> 924

attananata cgctgagact ttaacctant tatagacata gaanatataa ttcttanata 60
ttaaaacctt ananacttac tntataaatt gtnatttaaa aacagggtga atataaagta 120
taaataatta tagaagattg atttccntaa cagtgcgtgt tatgttataa atatataatt 180
aatacatgaa atggacaatg tttcanttat tganacgaac ttcttgacta tgtctgcaat 240
cgatgactgt gagttatata taaaagtttt cttanatact tacgtgtata tatataagta 300
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<210> 925

<211> 145

<212> DNA

<213> Ctenocephalides felis

<400> 925

cnttacgctt tcagtgtgcc ggaattcggc tnanogtggc cgcggccgcg gtacgaaagg 60
accattaatt tataataatt attttaattt gaataaaatt aaaaaaaaaa aaaaaagaaa 120
aaaaaaaaaa aaaaaaaaaa aaaaa 145

<210> 926

<211> 428

<212> DNA

<213> Ctenocephalides felis

<400> 926

taagttgtcc ctaaattctt tcaaggctcc ccttgccgat tttccgactt cacggactaa 60

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409

<210> 930

<211> 349

<212> DNA

<213> Ctenocephalides felis

<400> 930

taaaacgaac tctagaatat tcaaacttag ctggagggtga tacttccaac atgaaatata 60
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ctgaggtagt atcttgatat gtgaagttct tgaacataat tgtgttctta aaaatatgaa 180
aatttgtgta tttatattta aagtcaactt attttctaaa aattacgata gcttataatt 240
atgtgttatg tgaatatgat tatcaattgt taaatcaatg tattctttat atgttactat 300
tatatattat taaattaana aaaanaaaan naaaanaaaa aaaaaaaaaa 349

<210> 931

<211> 382

<212> DNA

<213> Ctenocephalides felis

<400> 931

taaaatcttg tggagaagaa tgtgtcattg cgatcaaaac caacacagcc cttgataaat 60
aatgtatttt tcaacacatt caaaattaaa atactatgag aaccaattca aactgtttta 120
acaagtttga caaagttgtg tcgttgataa tcctagttga tgtattgtct attaaaatcc 180
tgacacttca agcattgttt atgaatatat tgatcaagaa tacaaggttt ttaagttctc 240
tctggaatat tttttgttct tccagagatg ttttaattgac agttgtcaat caattgggtt 300
tttcatagac atacattgta acagtatgct tgttttaata aaatcaatca aattaataaa 360
tatccatgat tatgaattaa aa 382

<210> 932

<211> 313

<212> DNA

<213> Ctenocephalides felis

<400> 932

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cgtggcatat tttacatgaa tcagagtttg cattacaatc gttaccctga tctgatttgc 120
atcctcgagt aatgacacct ttttcaattt ttgaatagca gtogtccttt ggattcatac 180
aaacttttgt cttcgtcttt cctgcatctt tgaaacattc gtttcttagt tctggaagtt 240
tttgaacggt acaaccgat ttctcgcaac acattttttc tcggttagtc gagtcacaac 300
tttctttaac cgt 313

<210> 933

<211> 85

<212> DNA

<213> Ctenocephalides felis

<400> 933

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gagaaaagtt gccaaaggaa ttgtg 85

<210> 934

<211> 446

<212> DNA

<213> Ctenocephalides felis

<400> 934

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tgaatgatta aatgtaatag attaatacaa ttttagatta ttaaaattgt tctattacta 120
cagtagcaac ctcagcctga aaattaaccg aacaaatttc taacccttat caatgtatag 180
atthttgaaaa ataacataga aatactatth ttttgatgac tgtaataaaa aaatgtataa 240
atggccatac ctgaaaagat ttctatgtgt atthttttatt accttttatt gctgaatgga 300
taaaagataa atacaatttc ataagctctt ggattaaatt aattttgaaat aaatccataa 360
ttataaaaata tcaaattgaa atatgggaact acaaaatgta tacgaaatat aacttatata 420
ataaatgana acnaatnntg ccgncc 446

<210> 935

<211> 491

<212> DNA

<213> Ctenocephalides felis

<400> 935

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ttttgtggtt tgtggtccat atthttaattt gctacttaac atattctatg attatggntt 120
tattcaaaat taatttatcc aaacagctta taaaattgta tttanctttt atccagttca 180
acaataaaaat gttaacanaa aaatacacat aganatcttt tcanacatgg ccattttaa 240
atthttttcat taagggtatc aaaaatatan caggcatggn catttatata ttttttttag 300
tatgagccan canaaaaata ntanaatttc natgttanta ntcaanntct anacantnan 360
anngatgtta aaagttaatt ttcangcaga agttgctact gnactnatnn aacaattttt 420
tcatccanaa ntngntnaac ccacnncatt taatcatcac nantaaattc cgnttggnat 480
tncgantggg t 491

<210> 936

<211> 323

<212> DNA

<213> Ctenocephalides felis

<400> 936

aggatcaagag atagatataa atattttttta taaatttctt ccttggtatc aattanatta 60

tcattacagt gagctttatc atcggtgtct ttgaattctt cttttttgat atcgatttca 360
 ttttttagttt cgggaaaatc tttcagcgct cgcgcacgta gtaagctaga ttcagtggaa 420
 gatattgaac tactttcta atgatttaatg gatgagttat tgctttttga agagcttttt 480
 cgaagttca 489

<210> 940

<211> 478

<212> DNA

<213> Ctenocephalides felis

<400> 940

gttcattttg tatgaaactt tcagtaagaa gtaaggatc cttttgtgaa tttgatggtc 60
 tttctttcac tgatccaaat attggttctt cgcgattaat atcaacattt aattcttttt 120
 gttcattact tgcacagggt gttgaagtag tgattactgt attaatatct tgcaccgtgt 180
 taatatcttg caccgatgat gctatctctg gaacattgct aatatcttga ggttctgaaa 240
 cgtcttttga tccactgtt ggttcacatt tagtaaattc caaagtaaac tgtgtgacgg 300
 gtttcattcg tataacttcg tgggttatga gacaaatctt ttgagttttg tttcatctt 360
 taggaaaatc gtgtgaaatt gatacgtcat aaatatcacc aacttttctt gcaacttgcg 420
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<210> 941

<211> 139

<212> DNA

<213> Ctenocephalides felis

<400> 941

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 cgactggat ttggcaaccg attcctaatt ttcctcaaat gccatggatg ccacaacaga 120
 tgatcagacc gacttttgt 139

<210> 942

<211> 390

<212> DNA

<213> Ctenocephalides felis

<400> 942

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 tataaatgat tcgacaaata accaaattcc tcgaagacgt ctccgcgagt gcgttaaagt 120
 tccaacggga attctacaag gcaaaatcga aagagttcag gatgctcctt cagcagatct 180
 cgaggagcag gcaggggacg atttttaaga aacaaccggc tctgtggtgt ctggtcggat 240
 gtctagtagg tggtttttagt ctggccactc tcagcctggc ccgcaccgtc aagaatcacc 300
 cggacgtcta cctgatccgc agccactcgg gcgaggagcg ctactggcgc cgatacacca 360
 aactaatcga cgtcagcggg tcgcgcaagt 390

<210> 943
 <211> 274
 <212> DNA
 <213> Ctenocephalides felis

<400> 943
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 atatanatnt gatgctattg ttaaagtgtc aananntgca canattattc cacanatctc 120
 gcatgatacc atcacganta caacgaattg gaagctttcc cacagnagtt aataanagca 180
 cctattatgg gaaatncaat cgcatatcca gcttccaaca ttaanggaat gcatagnatg 240
 cctgttcttc cattgtgtct ttanactcgg tcgt 274

<210> 944
 <211> 598
 <212> DNA
 <213> Ctenocephalides felis

<400> 944
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 tatgatcgat cgtattttat attaagagca attacattat taattaagat attacattct 120
 cttgaattac ttcttattct ttggaacctc taaaagtctt tccagtagtt catccatagc 180
 ttctatcaag ctagtacgat aattttcatt gttctccatg agatccaaaa cagtctgctt 240
 tctcattcca ttaacagtac gatcaaaactc ctcagaatcg tggntcaaaa ctgccagtat 300
 ttcaggaggc atttgagtaa gaggcaatgt catcaccgcc aaaatttttag cgcacaaacg 360
 caaatcatcc gtgctancat caaactcttg ttcaggaatt atatcgttta catccaaatt 420
 ttcntcgtat atgttttcca caaatgctgc tctgtagaac ctcttcaatc ctggtagngc 480
 tggctcttaa agctccanat gttgtcgata tanaagatga ttgnatccan agctggtgga 540
 ttgttgtgca tcttggantc gncaagatgc attgtnaagt anacanttgn ataganct 598

<210> 945
 <211> 167
 <212> DNA
 <213> Ctenocephalides felis

<400> 945
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 taccatcctt accatctttc ccaaccttgc caacatcttc cccaacagca ggatttcctt 120
 ttggccgaaa atctcttgat atgcaaacia aaactggaac taaatgt 167

<210> 946
 <211> 160
 <212> DNA
 <213> Ctenocephalides felis

<400> 946

0994936-44101

ttatttccca atgcanatgc actgctggtg atttgactcg tatggctaca attgttgccg 60
 acaaactagg tgcccaacct gggtgtccac caattacagc ttgaccttc ttgcgtccat 120
 tacatgccat gtttangcaa agggctctgg aattgggggt 160

<210> 947
 <211> 193
 <212> DNA
 <213> Ctenocephalides felis

<400> 947
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 tcatcgtctc cggaggaatc ggccaatctg aaatccattt ggctgttgta gctgacaaaa 120
 ttaagcaagt ccaatatacc tacgaaatct acgccattgt ctacgtttaa aatccttaaa 180
 tgactgaaat tgt 193

<210> 948
 <211> 413
 <212> DNA
 <213> Ctenocephalides felis

<400> 948
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 tgttctagaa atacaaagt taaagttcaa ggtttgtata gcttaataaa gtaaaccattt 120
 taaaatgtaa tgaatttatc tgcaaatagt caaaatcaaa attactatat aatgattatt 180
 gaaataatgc ttttatagat tgcatttcaa tctgtattaa attgtatgta aatcacagca 240
 caagatctaa cacacaattc atctaacaga aagaacaaaa taattttaat gttattaaaa 300
 attacatata aaataacttt tacaataaag taaccttaca tgagatgtgt tgatttcaga 360
 tacttttcat acaacagtgc tttctgtata aacaatataa tatanataac ggt 413

<210> 949
 <211> 237
 <212> DNA
 <213> Ctenocephalides felis

<400> 949
 aaacctatta attacaacaa ttacactaaa ttaaattaca attaatcctt aaactaacaa 60
 attcacttcc acgtgtctgt caaaaataaa atcactcaca aatctttaag caaacaccat 120
 gacaagttca ctcttgatga caaagttctt atcttttatt tacaattgtc ttgcacaaat 180
 aatggnnttat ttaatttaaa tcactttgat tgatttatgt gatgttcttc atctggt 237

<210> 950
 <211> 131
 <212> DNA
 <213> Ctenocephalides felis

<210> 954
 <211> 429
 <212> DNA
 <213> Ctenocephalides felis

<400> 954
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 tctcgatgat ggctcttggg acgttcctgt ttatggatat actgaatgtt tacgtgaaat 120
 attttacact actcgctcag catggttaac tgccggaatc atctttgctg ttatggtagc 180
 tcggccgcga ccacgctcga gcggccgccc gggcaggtag ggaagcacct taggctgtgc 240
 aggacatgta actgtatagc atttgtgtcc cagagccata ggtccgcaat tatgacgtaa 300
 cggatcatat gcaaaatttg cggggcaata atattgggtt cctatactat tttcgtcaca 360
 ataataatag ctttgacaat catttatatt tggataaaaat ctcgatgggtg acggacattt 420
 gaaaccttg 429

<210> 955
 <211> 296
 <212> DNA
 <213> Ctenocephalides felis

<400> 955
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 aaaaagaatt tattaataa anagaaantg gngatctacg tcaatttatc taaaatagtt 120
 tttagggtgta anaacnatta gaactaatc tatttgttta ctacttttgt tnctcgtatt 180
 taggttttgn ttttaattan gtatgttatt ttagaaagca ctgataagta taagggnattg 240
 ttganctgta ttttanaaga ctgccangca antcacgttt atttannnaa naangt 296

<210> 956
 <211> 221
 <212> DNA
 <213> Ctenocephalides felis

<400> 956
 gaacaatata gataccaaaa tcatttttgaa cgagatggaa cttgcgcaag agctcacatg 60
 gaatcttttag ttgatggtaa aataaaattc agacatgtca tggaagaaaaa tggaaaaaaa 120
 gttgaattta gtggacaact cagacgtaat gatgaacatt ccggtaatgg atatctgaga 180
 atcagttatg aagatacaaa tcgagaatca gattatatag t 221

<210> 957
 <211> 126
 <212> DNA
 <213> Ctenocephalides felis

<400> 957
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taccctatgc tagggatgct gttaagaaaa ctgtctctag ttgtataaca tagtctgctt 120
agcagt 126

<210> 958
<211> 337
<212> DNA
<213> Ctenocephalides felis

<400> 958
cgaggggctt atgaagctca ctggccatct ttcgaatggt ttcagtcggt ccgcttcgat 60
tttcatgtca agattttcat cgtcgccatt gtcgggcaca tcaatgtccg cggactgtcc 120
tgtttcatcg cccgtttttg taactgtttc agactttaga ttgattatat cgtatacttc 180
gggtctcgta tcgattgttg tattgtttgg aggcatattgt aatgcgttta gagactgttt 240
tgatgcactt ttattgttaa aaacatcgaa cactgggcgt gacgcgataa ctttggtaca 300
ctttagccca ccgttaacat tgaacgacac gaacagt 337

<210> 959
<211> 498
<212> DNA
<213> Ctenocephalides felis

<400> 959
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aagcatccaa tgaagcatct tgtaaacaac tatgcatctg tgaaatctat gttgattttg 120
aacatcagat tggggatgtc attgaaacaa aagttaaaga cagattcatt actgaaaatc 180
tgaaaaacaa actgaaggaa tttgttgac atttatctga cctcccaaca tctttaaata 240
tgatctagta ttaagcataa gaattcaana tatacaacct ttccgttacc aatctaattg 300
agacaaaaag caattactgg caatatttaa acttaatttt gcatatggat aagtcctatt 360
gttttagccaa caaacannaa tgctgacaat ctantatgtc tgaaaaacat caaaagctgt 420
tcttttgna acacatcana cacagtatta nncanacctt tctataaagc tctannnata 480
tnnnanagtt agannact 498

<210> 960
<211> 498
<212> DNA
<213> Ctenocephalides felis

<400> 960
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tctggtgtgc cccaatattg atgactttcc ttccattcgc aaggagatcc aatacaaaat 120
acatgcccct cttcactgcg cattaagact agagtaggac ccttatatga taaaacatga 180
tgcaaaaatc tattcattcc caaaccgtgt tcccttgaat cataaagtaa tgcccaatga 240
gaaggcacia cagatagtaa tttagccatg aatgcttgtg aggctaaatt aactccagaa 300
tcgctaggac tagaagcttt gactggctta gaatatagag gcggcaatgc acctgctagt 360
aaccatgcaa gcgatacagg taatagtga ggttcaacca tttttccaaa tggattttggt 420

ttatccaaaa taggtgtgga taattccaaa cccaagccct cctcatgtgt gtcaatacct 480
ctgtatgatg tgcttaaa 498

<210> 961
<211> 414
<212> DNA
<213> Ctenocephalides felis

<400> 961
aaatggaata acactataat ttctgttaca ttatagttaa agtgtaaaaa aaatgagtga 60
aaatatggcg tcccatattc cttacaataa ttggntcact tacaatcagt tataacatct 120
gcatacaaaa tgtnggtatt tcaattttat acatacaana caaatttcat ttacaatttt 180
acgtagttat tttattaact aattgataat aaaaaccctt ttaagacaca aaaatgtgtg 240
tgaaatttan ttaatacanta tgaaaatttt taaatcttta ntgttaacan tgattttttt 300
ttaaatagga acancttaan gcaacattga gaaaatcttc gacngctatt gttatggttc 360
ctgtttgttg ggaatctcgt tgtctgaatg cttcctgtga gcctctgtat ttgn 414

<210> 962
<211> 234
<212> DNA
<213> Ctenocephalides felis

<400> 962
aaaagtgnnt taccatagan gtttgtgaaa gacctgngtg tcctcaacgc tttatcagac 60
aaagtcttag aactaaccoc tgatgaacgt cctagcttat tcttcttccg cttancanta 120
aatttcaaat cccccgnaga aancgnnaaa nccaanactg aactcaccaa nggcatcaan 180
cancttgagc gaagccttcg ataaaaccta nanaggcaaa gtgctgttca ccgt 234

<210> 963
<211> 379
<212> DNA
<213> Ctenocephalides felis

<400> 963
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ccgatttcaa cctagctaaa gaatacaacg actcctaccc ggtgggtttt aacatcatct 120
tatggtttgg agtagccttt ttcttctcgc tactagctat ctgtatctcg atctccacaa 180
tggaaccccg aagggactcc attatttaca gaatgacatc cacacgtatc aagaaggaga 240
attaagtttg tgaaggagtg tttttaattg taaatagatt gtttagtatt attacaatgc 300
aacgtgatca atattattta aaaatacaat atctttgttg ttacatattt gtttaacatt 360
cctcatatta ccgaattgt 379

<210> 964
<211> 462

<212> DNA

<213> Ctenocephalides felis

<400> 964

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atggtgcatg gatgcatttc gctgatcggt aaaatacgcg atacaaaaaa ttaacaacgt 60
tgcgcgtctc ggcataaatt acngttcnan aattctcaaa nctttantct tctcntanta 120
naattatgtg tatttagtctn cgcgacnata nttatacggt tgcgcgtata tatanaataa 180
taaagattca ttacatactc aaattactat tacnatatac attttgcant gacaaccata 240
tcnttggnca tgnaattata ttgtnactgt anattcaata catttctctt tatttaantt 300
tgnaactann ancnaactaa ctattantac tcgcattana tccannntta tancatncc 360
tatnntcgng ttttttactt ttgtcatata ctttnccttt nttttacttg antannatcn 420
cttaaaacgn tnanaatnan nccnacatct atnttagnaa nc 462
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<210> 965

<211> 258

<212> DNA

<213> Ctenocephalides felis

<400> 965

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ttttggaggt tttctaaaac aattatgaat ataatgtatt tgttaccaa taatttgcatt 120
atggcaacca tatatgaaga tctgtatatt gttcatgggt tcattccaat tctgcacgac 180
tcatattcag acaatcatcc tcgagctaatt cctctccacc gactaattta agagatttaa 240
gaagtgaagt tatgtcgt 258
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<210> 966

<211> 134

<212> DNA

<213> Ctenocephalides felis

<400> 966

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aanaccanga acaanactta ggaacacaag gttttattac ccaccacaat ttgctggac 60
aaaaccctag ccaaagtgggt ttcaactatc acaccagcaa tttccangca agggctaata 120
nacactgnna atgt 134
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<210> 967

<211> 462

<212> DNA

<213> Ctenocephalides felis

<400> 967

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nttaanaaaa taataacaac attaactgtc agccatttta tcttctgagc aaaataacct 120
ttttaccatg tttatcnaaa tttataaaat tgacctttaa acctttcccg atttattaaa 180
aatggatttg tatataaaat taaatgcgca agcaggaggc agggataaaa taattagtat 240
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atgagcagaa ctttgtggga cttcctgcag aaacatggac aacatcagga agtaattgac 300
aagttgaaaa gtttggagtt tacattcagc tcattcagga aattgctgcg tttgggaaaa 360
tgcatanatg ttttcnactc ttcattgccca actatacatt acccanaccc acaattnnaa 420
ctacattngn nattgnncac nccttntttg nnttannttt an 462

<210> 968

<211> 470

<212> DNA

<213> Ctenocephalides felis

<400> 968

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gagtataccg agttgctcta tggacttaag atgttagaca aagttgtaaa ttattttaatt 120
tcaaacaaat ttgccaaata tttcattcan attaaacaaa ccattcaaaa gttacaagaa 180
ttttaaggtt agnaaacatt gcgacaacgt antgtcnaca tcaatttaaa attantaatt 240
tttcagtata ccgagttgct ctatggactt aggatgtag aaaaagttat agactattta 300
atthtgaaca aatttgccaa atatttcatt taaattaanc aaacagttta nangttacaa 360
gaatttgaan gttagtaaac attgcgacaa cgtagggtcg acatcaagta nnnattagta 420
anttatgagt ataccgagtt gantagggac ttttggaanc gatntngtgt 470

<210> 969

<211> 397

<212> DNA

<213> Ctenocephalides felis

<400> 969

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atcttttagga attgatattc cagataggct acgatctgca gttttaaccc aattctctag 120
tctgtcactt gtgatgtcgt atgtagacca tgtatcacgg aacgccatta atctgcgtaa 180
atattcacca acotcatctt gcagggtgtag caatacatcc attgcctcat tgtgtgcttg 240
ctcaactcct ggacaatcaa ctaactcttg aagthtttca gtcatacaaaa ccaattgttg 300
caatttagcg tgatgatgag ctatatctga actcanagat tgatataatg tgatgtattg 360
atcataatcg actgtcgtaa ctgcagacaa atcaggt 397

<210> 970

<211> 340

<212> DNA

<213> Ctenocephalides felis

<400> 970

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gacatatgtc cgggcttgct caaaaatgta aaatgcacat gggaaattttc caatggcgctc 120
cacttatgaa taatattggg aagtcctagc aattgcgtta tcaaattttc ctgcacgggt 180
tgaaaacaat ccttangcat cttcaaata tcccttacaa ttttaccctg gttaattaat 240
ttggtaaact cgtcaccgga tttgtcgagt gtcttaactt tatcngcgat gctggttctg 300

340

<210> 974
<211> 171
<212> DNA

<213> Ctenocephalides felis

<400> 974

agaaaaaatg agccctgacc ataagcaaag accgaatcac ttgagtttta cctctgaacc 60
tgtaaagtgc cataacaata gtcctactca tagcccaaaa tcagcaactt tatcgaattt 120
accgagacga ccgccagtag atgtggaatt tatagatatt tcatattcag t 171

<210> 975

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 975

tgaggtagaa gaaatataat aaatccaata caggagatac gaatcttgct atttgccaat 60
cgatgaagca aattttcaacg ggtttaccat cctgatattt aaacatcata ttattattcc 120
aacaatctcc atgtgaaaga actctataat tttcagaacc cgttgcatg aaacaacttt 180
ccatatattc ttcacaatta tctttgattt tcttcacatt ttcagaaat tctgtgatac 240
ctccgtcatc tattgcttcc aaggcttggt tcagtcāaaa atcgcataaa tcgtaaaagg 300
cttctctacc ggtcatatca tacatggctg agtcgatttg agtaatttta tgggaatttt 360
caggctgttg atctctcatg acaaaactta atgcgtgata tttagctaatt ccttttgcaa 420
ctaacgttat gtgagaaaaa tccatttttt ttcttttgtc aaacattaca aaatttctgg 480
cgtgcaaatac ttccaaaa 498

<210> 976

<211> 255

<212> DNA

<213> Ctenocephalides felis

<400> 976

tgaagaagct aatcagcaag caaagcaaaa tgatatacaa aagaatcata ataaaaatat 60
ctataaagga ggacattata aaaattatca aagaggtggc tatagaggac gtggaggaca 120
tcattccagg cgaatgcaga atcgaacaaa tagtgatact actaacgggg atagatgaag 180
atggcttact cttttagtaa agtatatgta tcaatgtgaa gcgataaaga aatatatcaa 240
gtcattataa taagt 255

<210> 977

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 977

aagttttcgc agtttataaaa tccagaagag ataccagagc aacttcaaca tcagatcaat 60
gagtgacgtt cacaattaag aatgtctagt tcagagctaa caaagctgct atcgtcatta 120
tcaagcgtat tgagcgatca atcatatata caacagcttc tcgatatcaa cgataccatc 180
actgagatgt cagaagttga aaattgaaag tcatcaacaa atgcatgtc atcaaagaat 240

<210> 981
 <211> 351
 <212> DNA
 <213> Ctenocephalides felis

<400> 981
 tttttttttt tttttttttt tttgttgata aaacacaaat ttattttaca tgttaaaaat 60
 tcttataaag taaatacatc atccagttac acacgtattt atatatccat ataactcgac 120
 aaagtagctt tacacaattt ggaaattgca atgtgtttaa actaattggt ttttagaact 180
 atattatatt atattttggg gaatatataa gttacggacc tacaaaatta agactatgta 240
 atgtattctt ctttagccac tgacaaattt aaataataaa tcttgcttcg ataagtaatt 300
 tgaactaata tcgatgactt cctttcgttt ttgaaaacta aaaactcttg t 351

<210> 982
 <211> 224
 <212> DNA
 <213> Ctenocephalides felis

<400> 982
 aatgattttg tttgacaaat ggttttttaa taaacaggta ttcgaaattg atacgattga 60
 tgatgaagta gaaaaattct ggaacagcca tataataata gtccaaaatg tatttcatag 120
 taaattacaa aaataattga ttaaaattat aaatctatga ctgttcttga tatgaacctc 180
 tttcataaaa catattaaga tttgattcaa aattgagggt taag 224

<210> 983
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 983
 tacgagtgc cattaaacgc tcgaggtgta ttcgacgtgg cccgatatgc ttgtgcagct 60
 gagttatatt tcaacagcgt tctgcagcag tgcgtacctg cataccagtc agactgttta 120
 ggtgcaagtg tcacttcttc cccatccata ccatccttac catccttacc atctttcca 180
 accttgccaa catcttcccc aacagcagga tttccttttg gccgaaaatc tcttgatag 240
 caaacaaaaa ctggaactaa atgtacaaaa ggagaagttt cttaaagacga tttaaattct 300
 acatgtacct agtgagtgtg ttatatgaaa ttgctattgc atattacata caagcttaat 360
 aaaggttatg gtgatttatt tcatttaaag gcaatgtatc ggtttaatgg ttttaaattt 420
 atttttatatt aatattaaat agattaatta aaaatctata aagtgataag aggctgatat 480
 ccataatatt attgaata 498

<210> 984
 <211> 102
 <212> DNA

0991036-11101

<213> Ctenocephalides felis

<400> 984

agaccaagta aaaatctcac tcacagcttt taccttatta ggatcattta aaaatctatc 60
tagaatgccca ggttttgccca gagattgctg cactttctta gt 102

<210> 985

<211> 204

<212> DNA

<213> Ctenocephalides felis

<400> 985

ggacggccga ctcgctccgaa ttatgctcgg cacgtgttcg attcaaata tcccgtacg 60
ttcgacatcc aaatgataaa cactatctaa tcaagtgatg ttgtttaatt aagcaagtgt 120
tagttcgaat tcatttttgt gttttgtgta tattataata aatggacccc gaaattcctc 180
tgaaaggtgt gactccgggt ttgt 204

<210> 986

<211> 324

<212> DNA

<213> Ctenocephalides felis

<400> 986

gcgcccggacg cgtcaaataa actaaattan atttaattta ctaacaaaca tttggtcatt 60
agtttaattgt caataatgtg cattttacat ctaataattt gaaatcatta atggtcataa 120
atcttcgaaa agttgatggc acttcatgct tcaaactgcc aacgacatan caagctcaag 180
atgcaatatt aaactatgtt gtaaacatan natatattat tgaaatttta taaagaggac 240
ttttataatc gctcaaagtt tgacttaata caanataaat tattttctct tantatattt 300
ttatatttta aagaaaatgt ntgt 324

<210> 987

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 987

gtgagtttagc acacaaatta gtctcagatt cgatcccaac ctctgtcgat cctatatcag 60
acagcacgag aaaattttca caaattttat agatctcaat ttaatttcaa gtgaaaatcg 120
ccttgatgcc gataacaagc tgcatataaa aatattaagt taaaacatat tattagatat 180
aatcataata tgtcgcaact agtatagagc aactactgaa taacattcca gaaatccaga 240
aacaagccat gcaataaaaat ttcaatacaa ttactgaatg tcctcataat atgaaaaaaa 300
aatanannan atantataat atataatcga agtaaattatt caattaacga aataaaatcg 360
taacanagaa tttgagagaa taatttgcac tttttatatg gcgatatggc gttgtcanta 420
gtattcnctg tatagaatga tcaatctgat aagaatgtca catattaaat ttttanttg 480
aaaattttata tgaatccc 498

<210> 988
 <211> 420
 <212> DNA
 <213> Ctenocephalides felis

<400> 988
 aatctgaatt tcatgaattt tggaaaaatt agtcatcata atttcaaaat ttgtctttga 60
 caacttttaa ggtagctaatt tctcacttcc tattaacttg ttttaggaca aaactccact 120
 tacacctagt ttgaactaca aagactacta tatatacaaa ttgaatttta tgatttttgt 180
 ataatttata aattcaaaat tcaaaaattt actctgccaa cttcaaaaagt agctgaatct 240
 cacttcctat taacatgtct taggaagaca aaatttcact tacacctagt ttgatcttac 300
 aactactata cataaaggct aaatttcattg aattttggaa aaaatgactc tcatcattat 360
 ttcaaaaattt tacttcgaca actttagaag caattccact tactggtttg acctacaagt 420

<210> 989
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 989
 tttttttttt tttttttttt ttttctggnc catacaactc taagctttcc aacatttgta 60
 ttttattcaa ataaatataa ataaaaatca taattcgaca attttacttg tatttatctt 120
 aaacatattt acagtatttc ctcaaaaact gttaaataca ataagttaac ttaaatacat 180
 ggatgttctg agaatgtgga tgagctcaag attgtagaac tgagtttgat ctacacaatt 240
 tttgcctaaa aggttcgact actcagaaag cagccaccg tgattccata ccgcctcaca 300
 ttgacaata aaatatatgt ataatgttaa ataggatttt aatggaaaaa agccaattta 360
 atacttttagc attatgaata tgtattttcca aattagtcta taaccgaatt taacctaaaa 420
 tacaggaaat acatattcat anatatacat atattttaat acaaaaaggt aacttgtgca 480
 aaaatgaaat tcaaatacac 500

<210> 990
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 990
 tcttttttoga tcattacgcc agtagtatct tgcataatta tgttaacaat attgttacat 60
 tttataaaat aatcttacta ttatctatag aacaatttat aattttatat atatcaacat 120
 tattgtttat tgctagatat tagaatttgt gtatttgata aatgaatgtt ggtttgtgta 180
 aatgatatat aattgcacga ttttagctca caaaaagtttg cttagatatt tgaactaaat 240
 tatggacaga tcgataccta gatccataac aaaaatttat ttaaatattca aatataattt 300
 ttttttgctg catgctgaat aacatctcgc attatctttt gaaatcgttt ctttgttgct 360
 aaatcttttaa attctaaaca cttttgtaaa gatccatttc catcgaatgc attagtcattg 420
 tcttgaaaat ctggagctgt ttcagtattc gcggaaatga aatttagagc aaaactacat 480

aaaactactc caaagtgt

498

<210> 991

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 991

tttgctcttc atagttcagg tctttataag accagtatgc aaaatcagct tgtgcaactg 60
caaaatcaac atcctgtgaa aatactgccg gagcggttatt ttcttttgca tatgttatga 120
tttctgagtc acattcttca aatgtggatc taataacatt acatttattt tggaagctac 180
acattatgac ctcaccgatg ttacaagctg gctttatatt atattcatta acatattcca 240
aaccattatc atctaaagta tcgaagattt cataaatagc catgatatca gacctttttc 300
gagctaccca tctatcctgc atatcatcta tgttgcaccc atcaaaaaat gcaactaatt 360
ccacatcaaa cctttgcaaa aattctatga attcaccagc tttttgctta tacaatttgt 420
attgacctcc tgtcaaaaaat ttttttttgt cagtctctct aaatatttgt ctagagcaac 480
ttccatcgat cactatga 498

<210> 992

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 992

acactgtcag taatattgat aaaagtgggt agcaagacgg aaataatgtg cagcctactg 60
acattgcaga tgacttaaac tgtgttgatg tggatagtgt tgacactgaa acttactcga 120
aatgcgacaa aaacattaaa cttattgata aaccactcaa gaagcaaatt gtagttttat 180
cagaaaatga ttttgatgac ggctgtccaa aatcgaatac taataataat aacgacccca 240
aagaaatttc ttctcatatt tgctaccttc aagatagcga ttttaatacc agatcagatt 300
taagtccgat catgactccg aaacatattt caacaccaga aataccaaag tctaacgcaa 360
ataattatgc gacttttagat cagagtttcc atttaggtca aaacgttcaa aatgcgcaaa 420
ttaacaaaaa taaatacatt tatatcgatc ctaataaaat tgaacaagat tttaacagca 480
atttaataaa tttaaaca 498

<210> 993

<211> 235

<212> DNA

<213> Ctenocephalides felis

<400> 993

aattgatcca taaattatga ttaaaagatt aagttactta agggataaca gcgtaattat 60
ttttaagaga acatatcgac aaaatagatt ggcacctcga tgttggatta agataatttt 120
aaaatgcaga agtttttaaa tttgggtctgt tcgaccatta attcttacat gatctgagtt 180
caaaccgggt taagccaggt tgggtttctat ccttaatttt ttaaaattaa ttagt 235

<210> 994
 <211> 72
 <212> DNA
 <213> Ctenocephalides felis

<400> 994
 atcgatcttt ggcggctaaa catatcttgc tgagcgaagc cggccgtata gaaatatgtg 60
 gctttaagga aa 72

<210> 995
 <211> 206
 <212> DNA
 <213> Ctenocephalides felis

<400> 995
 aacagacatt agtcaccacg cgctcgacga actttgattt tttttccgaa cgacaatcaa 60
 gtaaaactgca cataaaagag gagatgagat ttaatttttg cgtttaatgt atgtaaatac 120
 ttttaatctt aattaatttt tgtcattcgg aattaaagca gtcacttgat ggtctattgc 180
 acggaccgta gtaaaactgcg ccgcgt 206

<210> 996
 <211> 260
 <212> DNA
 <213> Ctenocephalides felis

<400> 996
 aatggtgtaa aaactgtaaa tatcccatTT gttgtcacca gccattattg atgatttaat 60
 tacagttatg aaactgctga tgctatgaga attaaaattg accaaattat tgttttattt 120
 tatttaaaaga taaatacata tatttaaatg gaaattcgtg gctctatgtc cctaattggga 180
 cttctattat ccataggaac tgctacagga gtgatattca cgttagaacc agaggatagg 240
 atttcattaa aaatgggcgt 260

<210> 997
 <211> 310
 <212> DNA
 <213> Ctenocephalides felis

<400> 997
 ttccggccgtg ttcttcatcc taagatgagc tccggccaag gatgcgcaat cgccttgga 60
 aacgacgacc tttaacgaac tgcgtccaa gcgcatcacg ctgaaactat gactgtcgtg 120
 gggtgatggc gaactcattg ttgaacctta caaaaactct taacttaaca ataaatactg 180
 ttcatataaaa tcaataaatt atattaaaac taaaagcgat cgaaaaaact attttttttt 240
 aatttggtaa aacaatctta aaagattgtt tagaccccg gaaacagc ggtttgttac 300
 tggtgtcaca 310

<210> 998
 <211> 59
 <212> DNA
 <213> Ctenocephalides felis

<400> 998
 tcctggatga gcggttttgaa attctgtcat ttacttatg atatcgggaa accacatgt 59

<210> 999
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 999
 ttgaaactat tcatttttaaa ataaactgtga caatctcata ttatattatt cacatatttg 60
 tatgctaata tagatcttat atattatatt cattttttaca angatgcttc tttagaaaca 120
 gatttttttt caaacagatt ttttaattgt ctttgaacat ttttcaaatt ttcttcttta 180
 attgtaacag gtagtccaca ttctttctga tccttcatga tttgttccat aatanaaatt 240
 ttctttttta gaaagccttc ttgctctgct ttttaataagt tttcataggc tgccaatctt 300
 ttagctttca actcatcaca atatatatta gttagttttt gcaatgattc tttcctcgtt 360
 atccagtga aatgatttgg tgggtggnnta tataacaatat tcaanttttc naatatcnac 420
 tcanatcttt tgtagtccca tctcctaang tatttcaaaa atttcttacg ttatcaatna 480
 antctttang taaagccg 498

<210> 1000
 <211> 231
 <212> DNA
 <213> Ctenocephalides felis

<400> 1000
 gcaatcatgc aacaataata aagtatctat ataatatctt acaaattgta caaagttaat 60
 catgaactaa atgtaatcct actaatataa atacaaaact tgtataaaat gttcgaatta 120
 gaattttgggt aaagtgaat aaattctcta taaaactaaa aaaaatattt ttgcaactgta 180
 tcatatattc cattgactca gaactcaaag actataattg ccgaatcacg t 231

<210> 1001
 <211> 247
 <212> DNA
 <213> Ctenocephalides felis

<400> 1001
 agaactactt gcatcttttt taggatgtct tttgccacac attctgcgga acatcacttg 60
 agcaataaat attcataatt ttgcgaattc cttgatttta aacaagcgca gacataatgt 120

atgtatatat gtatatatat atatatatat attgaatggt agagtcttgg atttgtgtat 180
 attttgtaga gtttcgaaca agaatccaaa aataatacaa aaaaaaaaaa aaaaaaaaaa 240
 aaaaaaa 247

<210> 1002
 <211> 297
 <212> DNA
 <213> Ctenocephalides felis

<400> 1002
 cacctatgta taattttata tatatatata taaagaaaat taaatctcac tcgattttta 60
 agataataaa ataaaaataaa gttacattta taataatgta agattaaatt gttaaattcta 120
 atttaattat atttcaaatt aaatatgtta atgtcgaact ttaaattgcaa tttcattttat 180
 attgcacgat ttatttttga ggtcttgagt aaggggagct acgataacgc gtatcgcggg 240
 tgctcacgtg acggctagtt agagacggtt cctcaacacg gcccttagag gagctgt 297

<210> 1003
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 1003
 acgcgttgat taattttgag aggcagcagg ccaagccatt tctttttaat tagtagctaa 60
 ttagacaaaa ggttttgtca aaaatcctga gccgatttcg aaaattttca actttttcaa 120
 aaatatctgt ttggtattgc ttccccgtag ttacttggtta aaataaatta aaatagtttg 180
 acaattttgt agaaaaaata ttccagattt gtaaaaaata ttttaataaa gtattgaatg 240
 gtogtggacg atgacaaatt ttcaaacttt tatgttcaca attttaaaat ttgctgcac 300
 tcaattcttg tagattaaat acacatatct gaaagttttt gcaacttgtc ttaagccact 360
 aaaatgccac ttacacctag ttaatataag ccaaacccaa tttgtaaata agtatacaga 420
 aaaacattcc aaattttata gataatacat aatctcagat tattttaagt gtttagaatg 480
 gttgccaggn agaactaa 498

<210> 1004
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 1004
 tcgttgattt agagttattg tattacatta caataaattt taatttttag ataaattgac 60
 gtctttttac atatgttttg aaaatatctg tattagaatt ttaattacat actatcacia 120
 attaataagg tgtatataaa tatacagaga aactataatt tgtttaaatt ttatttcgtg 180
 tcgcttcgtt tcaacaaaca agcaaatttc catgaacaat ttattggcaa catttatata 240
 aatagctaaa atttattcta tttttgaata tcatgaatat ttaaaactta aattatttta 300
 ttataacgat atacaattat taactttttt tatatacctt tacgtttcaa atgtttttga 360
 atattttggc ataccttaaa aaaattgatg tatgtgtgtg agtggatgag gatacaaaatt 420

ttcgggaaca ccgatcaacc gatttaaata aatcaaaata cattcgaata gtattaggca 480
 ggtctagtcg ttccaaaa 498

<210> 1005

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1005

aaatctcgat agttacgca ctcataaata attattttaa caatgaatgt taaaaaaaaat 60
 taaagtttgt aaatataata tatgtattgg attaacttag ttaattctcc ctcgcaattt 120
 tatactatag taaccagaaa caaaaatcag agtgtgtaaa atgtaaattc atatattttt 180
 ggtaaaaaata caatcaagat ataacagtgc cacaatatta ttaaaatagc tatttgtgac 240
 gaaacctaaa gtgtagtcag aatataaaaa acaataatat ttataccttc aaatgtatgc 300
 tttgaaaaaa agcattcgaa gattttgttt aaatattttg ttaagtccac atttatgttt 360
 gttcgttcaa tttaattatg tttcttttgc aagtaagatt atgttgtaga tattgtcaca 420
 aaattagtat attttatgta attttaagca tattgntatt ttttgaaaa tcggactatt 480
 gtcacaaaa tttaataa 498

<210> 1006

<211> 67

<212> DNA

<213> Ctenocephalides felis

<400> 1006

tattcgtagt atcaatgaag tcgtccgccc taagcattga tgaattttgg acaacgtagc 60
 atattgt 67

<210> 1007

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1007

catttgattt gatttatattc ttgagtttatt ttacttcatc ataacagcaa cataaaggat 60
 attccaaaaa atatgtgcga atgaatttga tagttttcat cacctgtgga tgtccaatat 120
 cgttttttaa atttttctca catagtgtag taagtccttt aagaaagtca ttcgacaacg 180
 ttttgattt taattccaat aacagataat tctctggata gttactcgga aattgtatgc 240
 acaaaataat tgtattaaat gatgtcgtgc taatttctac acgaaccatt tctccgacac 300
 aagtaataag ctttgtatta tccaaagttt tctcacatag ttgtcgaact gttttaagtt 360
 catcgtctaa tgcagccata cttcgttttc tctgtataat gtgttatata attatacagc 420
 aacaaatgca gctgtttaga aatttttagt gaatatgagt atgatattatt ctttagaaca 480
 tgtaagctaa ttagatta 498

<210> 1008
 <211> 95
 <212> DNA
 <213> Ctenocephalides felis

<400> 1008
 tacgagtgc cattaaacgc tcaaggtgta ttcgacgtgg cccgatatgc ttgtgcagct 60
 gagttatatt tcaacagcgt tctgcagcag tgcgt 95

<210> 1009
 <211> 406
 <212> DNA
 <213> Ctenocephalides felis

<400> 1009
 gtttgctata ttagttcggc ggtaagaaat atttttttaa tagcttgatg aaaacaagaa 60
 aatatttaaat cgagtgattt taaatataaa aatatatata tagaattata tgacaacaaa 120
 aaatgagtaa tgtagacgtc gtcgtgtttt cgtttcttgt cattttattt aacatttctt 180
 acgcttatta catattgttg tatatacata catatatata aattaataga agttttatcg 240
 aaacgatatt gatgaaatgt gtcttgtaag gtttttttta attacgaaaa aaacaaaaaa 300
 tgtgtgaaac tgtgattcct gcctttctcg tgtaaaacgg cgatgctaga aaatagaaac 360
 attaagcgtt ctttccattt aattaaaaat aattactaaa aagctg 406

<210> 1010
 <211> 84
 <212> DNA
 <213> Ctenocephalides felis

<400> 1010
 taattaattt taaaaaatta aggatagaaa ccaacctggc ttaaaccggt ttgaactcag 60
 atcatgtaag aattaatggt cgaa 84

<210> 1011
 <211> 228
 <212> DNA
 <213> Ctenocephalides felis

<400> 1011
 ctcgtaaatc acttggtcac cagtttgatt tgtggtagtc tcattttcta taggnataaa 60
 catcagntgg ttcattgaaa gggttgtttg ggtgcttgtc ggcttcgtcg aagggattgg 120
 tgcttgtttc gggttctggt tcgtcgaaag gatttgctgg aacgtcttgc ttggcgtaac 180
 tgggtgtcccc gtagacttgt ttcgaagatt caccaattgt tttgacgt 228

<210> 1012

<211> 245
 <212> DNA
 <213> Ctenocephalides felis

<400> 1012
 ggggtgatca ttccaacctg gtggtggtgt agggtttgc ctacttggca tttgagtagg 60
 aggtggtgct tgcggttgga attgattgac aaaacctgct ccttgtggtg aattcaacat 120
 agggttaagt agggcatttg ttggttgagg ttgagaacta ataggattca gaagacttgc 180
 tggttgttgg aattgaccag acattgtgct catcgtaact gtattggcat ttacaggcga 240
 attgt 245

<210> 1013
 <211> 351
 <212> DNA
 <213> Ctenocephalides felis

<400> 1013
 atggaataaa taatgttggc ccatatatat ccaatttatt attaaaataa attcatgatc 60
 cacggcagac cttaaattta atttgaggtc atttaaaaca tttaaaattt attcgattaa 120
 caacaatttt tagtagtagg ttagtttaat tatgaatcac aatatagaat tagcacatgt 180
 atttttgtga gtatgaactc acaccaataa acctgaattt taataatgtt taaggatata 240
 actaggttta tgattacatt gctacagcaa tcatttgagg gcagtttgga attgtgcatg 300
 gttcagcact cttgtatttg ttgcctcttg ttctagcttc ataatgatcg t 351

<210> 1014
 <211> 496
 <212> DNA
 <213> Ctenocephalides felis

<400> 1014
 agcactgcca gaaacctgtg gctcatattc aacagccccg caagtagata caggcttttt 60
 taacaagtct caagttataa ttcattgttg ttattgcaat aaactttacc tttgatctct 120
 ttccaattat ctataaaaaa tcattccaaa attactgcaa ttatttagag tcacagatta 180
 ataatcttaa aaggtttcga gttagtgtgt tacattaaga ttttctcatg cttgacagaa 240
 tcttagtttt tctttggttg ttttataatt tagaaaaaag gtgaagggtg gatttgagag 300
 attgtaaatg cttggcacta ttctatgaga tgtataaaat atatttttaa tattttaatg 360
 atttatattt aaataaagtg ttacatttaa taataatgta tataattgca atacgtttga 420
 ttacattttt tagttttcca tatgtaactt tatatttgaa tatttaatac attgcaatta 480
 aaaaaaaaaa aaaaaa 496

<210> 1015
 <211> 194
 <212> DNA
 <213> Ctenocephalides felis

0991936-112101

<400> 1015

atcccttttt tctatgaacg gtttttaggta acggagaata atgtaaggca tcaactaaagt 60
cgctttttatt tgtgatttca tgattaggct cgggtcttct gaccgcata aattgacccc 120
gcaattttgc ttcctttgcc tggtttgatg atacagcccg ccaatccaaa aataataatt 180
ttggtaaatg atgt 194

<210> 1016

<211> 401

<212> DNA

<213> Ctenocephalides felis

<400> 1016

tatcatcaac agcaacactg tgaacctttt ttctttctcac gacaccgttt atcgcgggcat 60
cattgggtcat atccctatca atagatgtcg aatctaattgg cagggtgagta ggtctgggag 120
gagcagacat agacctttcc aaaagtctct ctgtcgggttc aacgttcatt ttcattaaat 180
ccctcatccg tggagggttt actggaggcg tgctattacc ttctgaagggt attgtctcat 240
aaatggcttc cgatgatgca ctgatgccca ctgtttttga caataattca ttgtcattaa 300
tgactgcagg ttccttttgg gcagctatat atgactcagg gcgtattcga tgtgatcgcc 360
tcgattctgt cgtcgtctga gattcagctg aatgggaacg t 401

<210> 1017

<211> 422

<212> DNA

<213> Ctenocephalides felis

<400> 1017

tactgatttc aaaaacaaaa tcnaanagaa atatactatg aagttcaact gtaatgggac 60
ttagngcaaa taaatgcgag ggagtgcagag aaagagaaaag agaaagagag agtttgaata 120
aattatatta actattgcna gaaaaaaaga ntttaaaaca attatgttaa ctaatgacaa 180
tatatgntcc attcatcana tccgaaagac tgcacaanat acttattctg naaagatggg 240
aaaggtnagg ttttcgaatg cccacctaac tatgtatatg atcattctaa aaatatgtgt 300
aaaaagaaat cagtcagaag ntgattgcac cgtnatgaaa tgcacaaatc ccaattcttt 360
ataacctatg caccggancc atcaatntat gctttgggca atgacaaatt gcaaccgatc 420
gt 422

<210> 1018

<211> 233

<212> DNA

<213> Ctenocephalides felis

<400> 1018

taattaattt taaaaaatta aggatagaaa ccaacctggc ttaaaccggg ttgaactcag 60
atcatgtaag aattaatggg cgaacagacc aaattttaaa acttctgcat tttaaaatta 120
tcttaatcca acatcgaggg cgcaatctat ttgtgcgata tgttctctta aaaataatta 180
cgctgttatc ccttaagtaa cttaatcttt taatcataat ttatggatca att 233

<210> 1019
 <211> 459
 <212> DNA
 <213> Ctenocephalides felis

<400> 1019
 cctaaaaagc ggatttggat aaaatttgct gggtgtatgg gagctgccta ttcacccctcg 60
 aggaaaaata gaattagctt ggattctcac acgtgagcaa aacccatcgt cggaattaat 120
 gaaagaaatt tggacatatg tgaaaaataa tacacccata gatgttgaca aactaaaca 180
 caccgagcaa aattgtggaa aggatttctg aagataatta ctggatataa agncctttta 240
 agatcagctt tatcaaaaaca actgatgttt aagaataact aaatatatta tacttaatac 300
 ttagcttttc ctggcaatac tatattaaaa tattgacata agtgcattaa tatttttgc 360
 atagatttgc tttttatatt caatatataa tatgnattaa taataaaatc ttctaacatc 420
 aagtgtataa atgcattaat tttctcaaaa aggcttatg 459

<210> 1020
 <211> 477
 <212> DNA
 <213> Ctenocephalides felis

<400> 1020
 cttgaatttg ataagtgaag caattagaat aaagtccgaa cttttgctta gatttagaga 60
 tgcattgatg agaccagcct tgtctaaagc aaagctttcc ttggaacgac ttgaaaaggc 120
 tgtttcaatg gctattgatg atgctagact taaatttgaa aatgccatcc aagaaatgaa 180
 tgacgacgca gtaggcattc ttaattccat cactgaaaaa atccaagagg aaaccgagga 240
 gatcaaaaaca aatattggag gattactatt acaacaaatg ttcgatgatt ctgcccgctca 300
 atgcttgagg gatcaattgg ctgcagttaa agttttggcc aattcaacaa tcaacgatgc 360
 aaattcatgt attcgtcgtc aattatttgg agctaattgat ttaagtata atcttggtgc 420
 aatatttgat gaagctttcg aagggtgtca agaattagtt gatgagctaa atgattg 477

<210> 1021
 <211> 433
 <212> DNA
 <213> Ctenocephalides felis

<400> 1021
 ccatgttggg aagatttatt attttatatc ccttncaaaa atctgcacgt tgttcacaaa 60
 aaaaaatcat aaaatcttaa atttatttgc aaaaaaaaaa atagtgcggg aggagtga 120
 cttcgtaaat aaaactgcaa aagttacatt gataatttac aataaattca gacagtttgc 180
 aacgtttcta gaaaagttca gaagttttga aacaaatttc atcattttca accaaatgct 240
 ttcttttcta tttaccttta aagnttcaact tcaatatctc cctataatat tttgntacaa 300
 gagtggtgnt ttaagattta tagcatatta caaactgnta gttatattat tttctactta 360
 tcggtaatgn ttcctttttt tggtaatcag tttacaaaac tttctgcaaa aagttgtgcc 420
 atcaacaatt tgn 433

<210> 1022
 <211> 319
 <212> DNA
 <213> Ctenocephalides felis

<400> 1022
 atttatttgt tgaatatattt atatcaattt atttttgata attattttga taagctcaat 60
 ttgttccttg tgacaataat ttaggcatat aaaagaaaac cagtaaaaca atacaataaa 120
 atcaccaaca attagtttgt ttttcttctg tggtattaat catcagaaca taaataaaatt 180
 ctataagtta ttttgatata cattattgac tattagatac aattttattga atcaagttaa 240
 ttggtcgtaa ttttttacta tttttatatt tgtaaataat aaattaagat cttgctttta 300
 gaagtcttca atgtatagt 319

<210> 1023
 <211> 518
 <212> DNA
 <213> Ctenocephalides felis

<400> 1023
 aatttttgga atactttgaa atatattctt aaattaaatt ctttaacata tacataccac 60
 tttattaatg gagttttatt tggcatgcta attcttccat taccttggtg attcattatg 120
 tgtagattg ggcctgtat ttattaggac gaagaaaatt gaacatgcca ttccttctat 180
 tattttttat ggcatttggt gtggtattgt cactaccatt tgggtgtatct gaagtttctc 240
 ttgtgtcaga caaatgcaac aaagtcgcac gacctccatc taaacgacta ggcccccaac 300
 ctgaagtga tgcatattca ccagtatgcc ttgcgagact gtcattagca tgtgatccat 360
 ttgctgaaag gctgtttggt tgagacctat gccctgcac catttcatca tgagaaattg 420
 tattccgatg ataatcaggg tttgttgatg ttctaattgg cacaggtgga ggcggtggtc 480
 taacgctgac agtgacagta ttgaatact ggggtggt 518

<210> 1024
 <211> 112
 <212> DNA
 <213> Ctenocephalides felis

<400> 1024
 ctggtttgca agtcattcca ctoggacatg tttccaatgt tgttttctaag aaatcagngc 60
 caatcgcaat gcaaagggtt gctgtctcac aatcctggca ctttatttct cc 112

<210> 1025
 <211> 304
 <212> DNA
 <213> Ctenocephalides felis

0991936-1101

<400> 1025

atatctagcc aatattgcaa aattcttata agtgcattgt aaagaaaaac tattattntc 60
gaaaatatat caatattatt ataagtaaag aaattgtcat tccgaatgaa cttctgaggt 120
ctaaagaccc attacacaag tcagtgtcgc acatgggtgca atttagatcc cgggctcctt 180
tatttggttaa atctttcttt atttcttcac atgtgactcg ggcagggaca cattctctaa 240
tcacaccttt ttcaatcatg gatttataga aaactcttc tccgatgtct gttgtacact 300
agcg 304

<210> 1026

<211> 498

<212> DNA

<213> *Ctenocephalides felis*

<400> 1026

ccggtatgaa aaggaaagtg cttttacgtc caaacctgtg agtttccaat atgccacatg 60
tcattattcg tttactattc ttatccttaa tatttatagc actgtcgtaa taattctttg 120
taaaatgagc catatctctg ttgagagtca taccgtaatc atatcgacat tgatatgatt 180
ctccacataa atcttcagca cgattgatgt cgctacttct gtttgatgga agaaaatctt 240
taggttcttt aaccacgttt ggtataaatg aggaatttgc ataataactg gctgtncgac 300
caaattcacg agtgaagagt gccgctccga ggtgttcatt ttcacgatcc gcagcatcca 360
gtgacgtgcg anatctttat gaacagattc aaaactattg agattaacag gcacaaaagt 420
tccatcangg tngacaanag cgantgccat atcccaactc caatttccga gtagaccagc 480
agtttattaa taaatgcc 498

<210> 1027

<211> 305

<212> DNA

<213> *Ctenocephalides felis*

<400> 1027

ggaatattaa tgcattatcg tttcgggtgct aatatattct tatatatgta ttaaatttgc 60
cccgttttct taatctgaca ataagagata ataattgtcaa caaaaacatg cgattttaat 120
cttgacataa aaagtgtcaa ggtaattgta ataaaccgta ggcagctgat tataagacaa 180
cttttatata attactaaac aatttttatg gcataaatta atttaattaa ttaaaaaata 240
taattaataa aattgatacc attctaatac atataaaatt atcattttat ttattcaaat 300
cnaag 305

<210> 1028

<211> 127

<212> DNA

<213> *Ctenocephalides felis*

<400> 1028

aaaggcattt tttgtcttca agcacacacg aggcttttaa ctaccaatgt aatatttgac 60
tagaataatt ttaattgttt cagcgtccac tgaaggcttt aagcaacttc gtgccaaaca 120

gactctc

127

<210> 1029

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1029

aaaattccaa attttagttt ataaatcatc ttatatggaa actgtctgca acaaaccaga 60
ttttaaaata gaatccaata aatacggata taaaatttta ttaaaataca caaacataac 120
aaatgtcgtt aattactaat tcaaagtttc atacgatatg tcatatgcta attttagatt 180
tattatcata aataaattta ttatttaa atatttagag gaaaaaaaaa tattttctca 240
attctctcct tcaaaacttc tttgcacttc tccggctcca tacagtttta ataccacttt 300
tttcacaaaa ttcaacattt ttgtaaaatc cattgtgaaa attcatttgg ctgtttatta 360
aaagacatca tcccttcgga atctgttata taccctaaaac cagcactctt caaatacaca 420
aaatcctttt tcaagttaac ctggaacgtt acccatattt ggaagttcct tttggattca 480
acattgaatt tgttttcg 498

<210> 1030

<211> 454

<212> DNA

<213> Ctenocephalides felis

<400> 1030

acaagtanta attgtttata caatatgata catagttgaa aatagcatga aatatcatta 60
taattttgaa aggataaatt ctgttgacat ttttcttttt ttttaatat tttcatatat 120
atttgatttt tgctgaacat tataaaattc atgaattata gggaaataga atttgtaa 180
ttaaccaaac ttaccaataa gtcaacatta tatgataagg aaatagtaaa tatgacttct 240
taaaatatca gttattaaaa tttggagcaa tatgcattat caataaattt actggaattt 300
ttatgcctga aatcaaaatg ccagaatagg ctgtgaatgn tttaaatact ttttgatagt 360
tggaatgga atagctgatt tgtgaatgat tctactgatg natatttact aatactaata 420
taaaacacga ananannnngn anaaaaaag cttg 454

<210> 1031

<211> 154

<212> DNA

<213> Ctenocephalides felis

<400> 1031

tgatagatgt attgcaataa gttatttttt tatgaaagat aatgttcaac actaattgaa 60
atagattata agattttcac tacattttca tccatttttt tctacatcat gaaattctgt 120
attgtatgta attcattatt ttttaagttaa atgt 154

<210> 1032

<211> 285
 <212> DNA
 <213> Ctenocephalides felis

<400> 1032
 atatttatat tattatgata tatattgtta aattataaca atatgattat ttacatacat 60
 attttattat ttatcttcta ggaactcttt atccatatta ttgaattttt ctactaaatc 120
 tgaaggtatt tctagagatt ttaggtcatc tgtcccaatt tcttctcag ttcttattag 180
 aatgtcgaca acattctcac aagcaagcaa actggccttg tcaccaagtt ttaatgaaac 240
 ttgttttggt tcccatttgt ggtattctct taatatttca taagt 285

<210> 1033
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 1033
 atcgaaaaca aattcaatgt tgaatccaaa aggaacttcc aaatatgggt aacgttcgag 60
 gttaacttga aaaaggattt tgtgtatttg aagagtgtctg gtttggggta tataacagat 120
 tccgaaggga tgatgtcttt taataaacag ccaaataaat tttcacaatg gatatttaca 180
 aaatgttgaa ttttgtgaaa aaagtgggtat taaaactgta tggagccgga gaagtgcaca 240
 gaagttttga aggagagaat tgagaaaata tttttttttc ctctaataatg atttaaataa 300
 taaatttatt tatgataata aatctaaaat tagcatatga catatcgtat gaaactttga 360
 attagtaatt aacgacattt gttatgtttg tgtattttta taaaatttta tatccgtatt 420
 tattggattc tatttttaaaa tctggtttgt tgcagacagt ttccatataa gatgatttat 480
 aaactaaaat ttggaatt 498

<210> 1034
 <211> 88
 <212> DNA
 <213> Ctenocephalides felis

<400> 1034
 acaggataca agtgttctgt ctgcccataa taaaaaacga cataaacgta gtaaatacga 60
 taagtaatat gggcatcatn tatcagcg 88

<210> 1035
 <211> 394
 <212> DNA
 <213> Ctenocephalides felis

<400> 1035
 tttagcccaag tttcacagca gggtttggcag tcaactataat agtatgtctc ctttcatttt 60
 cccctgaacc aactttgnat gtgtaagagc cagcatcatc ttgttcagtt ttttcaataa 120
 tgaattgatg ttcttctttt attaattgat aacggctcctt gagatcattg atttcttcta 180

cttttttctc atcttttaaac cactgatcaa caggaccatc tttcaatgga cagggttagaa 240
ccaatggact gcgaatatca aaaagttttt gcgacgtggc ttcaccttct cgggcataaa 300
cactgctttg ggccaataat aataaaaattg cactacacaa aaactgcttc atattttattg 360
aattttcttc ccctcgattg aaaaagttca taag 394

<210> 1036

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1036

taggaaaaat tatacttgat aacacttcaa attcactcaa aaatataaaa gattttattt 60
aacgatgtta ctctgggtgaa cgaggctttt ttgaaataa tatacatata ctaagtatcg 120
agaactgttg cataaaaactc aaaataatta ctgaagcatt aaaaaatttt gtcgccttca 180
aaatagacct tattcgaagt aatgaaaaca tgccaacaat taatccaatc ttcaaagcat 240
cttttaaacg cctttataag gatattcttc agctcctttg gcgttttttt cttacaaaca 300
ttgttagtgg aatctatcga tccaaagagg tatctaaca tagtattact tagnaattcta 360
tacttaagta tccatgacaa taaataattt acagagggat agatctagtg aatacgttgg 420
ttgcccata tatttcatga gtttatggcc nnaaaagcgt tcacaatata ggcgttgtgt 480
gaagagagtc aacaatga 498

<210> 1037

<211> 415

<212> DNA

<213> Ctenocephalides felis

<400> 1037

ccacatgaaa ttttaaatgg aaagtatgaa atcagtcgca ttcaagtatt taacaacatg 60
ctatgatagn nttattaaaa caaccaaatt taccatgtag caagtcttcg caaatcatca 120
catttttttt caacaatgga ttttcagtga cacttagaac aagtggaaaca gaaccaaagt 180
taaaatatta tagtgaaatg tgtgcaaaac cagagatgaa ggatctagtc aactgaagc 240
aaactgttaa agaaatgata gaagctgttt gtcaagaatt tcttcaacct gaggagaata 300
gattaatatc aagagaaaaa tagatcttaa ttaaataagac tttaaataat tagcacaatt 360
tatttttagc tgaagagatt tcagttttca cttagctgaa ataaaacaac tattg 415

<210> 1038

<211> 109

<212> DNA

<213> Ctenocephalides felis

<400> 1038

aagctggctt gccaccgttt ggtcctccac catttgaagc aaatgttgg aatagaacag 60
taacattcgt tgaaatgtgc agcgacctag gatctgccat catagttgt 109

<210> 1039
 <211> 440
 <212> DNA
 <213> Ctenocephalides felis

<400> 1039
 gggnaagtag cgtgtgttgc ncttctgaaa tnantnggaa accctcggaa cttntngggg 60
 nantngccna ggacatncta tgcaaaataa attagtaaaa caatataatt naantatttg 120
 caatctttgc tgtgtataaa actangggnt tatnggntga aactgattta aattcatttt 180
 tgaactttgt tcttatatgt tgntcgtcat tagctaggaa tgttcctaca tatactttta 240
 cattcaccta aatatatata tatgtaatct tatatgtata taaagttttt gatctgtgtt 300
 ggcgaggtaa tattggcttg ataaacagtg tttttaacat gatgaatgtt caattgttaa 360
 atcttgtgaa aatgtaaatt tgcaatttca gctgtgaatg ttttctggct gcctagcatg 420
 tgtattgcat catatggngt 440

<210> 1040
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1040
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 aagctagaac cattingacca caaataatat atcactagac attttttagga agtttacagt 120
 ttgttataca attcttaaac taatttagtt atcagtaagt ttttaagcagt cggcacagtc 180
 tttacggact tgtactaagt tgnccctaaa ttctttcaag gctccccttg cgcattttcc 240
 gacttcacgg actaagttgc ccaattggga ccaggtttct ttgagtgcct tggccaagtc 300
 ttttgcctct tcgtgggcag cttgggagaac ccttttcaag caaactctgg cttcatcgac 360
 atcggtcgcg gcacaacgca ctccctggct tgngctctga gggcttcggc gtctccctgg 420
 cttntnttca gcggccaacc attttggcga acttgggtga attcatcacg tttggcatct 480
 ntgnaacctt gaccttacac 500

<210> 1041
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 1041
 attagatatg gtctgaccat gattgatata ttttgataca ttttaggctt ataatatann 60
 aaaatacagt caatttaaca tttgatatta catatattaa atcaacaata tctaaacatt 120
 gaaattagag aaactgaacc tgaagatagt gatttaagta taaattctaa gctagtaaag 180
 aagatccgaa aaaatctgat aatggtaatt ttaccgctcc aactaaatat ccaaaattcc 240
 agcagaatth gtaatgtaaa tattgattct gataaactga aatcaccagt aaaaaaatc 300
 caagaagttc taataatggt aattttacca ctaaggaata taaatgctgc tgcaagagaa 360
 gatttgacta atttcaaca gaatacccca tcgaaataag cgatcagcaa ttgaagaaga 420
 taattgtgct aattgggtgat ggtcttaatt ttatgatcgt ttatatatgg taataataag 480
 tcttataagc ttttgatt 498

<210> 1042
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 1042
 gattgctttg aaaaaagttc agaatttcca aaatatgtca aaataaaaaa acattttttt 60
 ttcaaaagng gtattttctt gtcaaaatag tttctcaaaa atgttaatcg tttttttaaa 120
 aaataataat ttttattacg ggaagttcca gcaatttgcc ttaagacacg atgccatgcy 180
 cccactagtt ataaaaattga ttttagataa tgactttcaa tacgtcgag gaacatttag 240
 atgcggaatg cgttgcagtg gttaaataat ccatataatt tgtattagct acctaattga 300
 cttatacccc aaataacctc acattttcag ttatttttaa ctttctgtag ggtaaattat 360
 agtaattgtc caaaaatcga aaataaaaaat ggttgcatat cttcacgctt tggcatacct 420
 tagaaagaat ggatttatgt gtgtgtatgt agtatgtatg tatgtataga gacaattttt 480
 ccccgacgtt ttcgggag 498

<210> 1043
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 1043
 aacattgttg taaataatat gttctcgatc caatatacaa tactgtagta aataatatgt 60
 gctcgaattt aaagaaatgt ccgggctcgt gtaaactaca tatatgatga ataataaat 120
 catcaaatac tattgggtat aaacaatatg cattgaatgg tccagagtat aaataataac 180
 tactttacgc ccccggttg gctcgaacca ctaacotttc ggtaaacagc cgaaagtgt 240
 agccaattgc gccacggggg ctcttatcgc ttcttgataa tagtaacaca tctcaataaa 300
 cacattttac acatgatttg ccatttttagt aaataatagg cactcgattt tatagaaatg 360
 tcagggtcgc tcccggttga tgaacccgaa acctccgcac ccaaagcggg aatcataccc 420
 ctagaccaac gaaacacatg ttctatccag tgcgtgttgg ggtgcatcca atgtcaacat 480
 tgtagtaata atatggcc 498

<210> 1044
 <211> 437
 <212> DNA
 <213> Ctenocephalides felis

<400> 1044
 gattttcaat acaaagtgga agatccgcca attcaacttt catttggtgc caatgaagca 60
 ggagatgcat caggaaagt gaccggcagc tactacgttt tactccccga tggaagagtg 120
 atgactgtcg actacgttgt agatggcgaa agcggttttc aaccgaaaat ttctttcaac 180
 aaatagatca agctgacaaa ggaatcgaat cacgtaaaact tcattaacaa catcatttca 240
 tagctaaaaa tttaaacac gaaacatata tactcatgaa ttactgccta tattattgtt 300
 tatactgcct aataaacaat ttgtgattaa tactaattaa ttactactg ctaaacagaa 360

gaaatatatg acgaagctgt gaaacgcaat aaagttttgt aaatatattt cagattcatt 420
 taaactaaca attatgt 437

<210> 1045
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 1045
 taattaattt taaaaaatta aggatagaaa ccaacctggc ttaaaccggt ttgaactcag 60
 gatcatgtac gcaattaatg gtcgaacaga ccaaanttta aaacttctgc attttaaaat 120
 tatcttaatc caacatngag gtcgcaatct attntgncga tatgttctnt taaaaatant 180
 tacgctgtta tcccttaagn aacttaatct tttaatcata atttatggat caantattca 240
 attattttatg ttttaataaa aaaaangttt tataaattnt cctatcaccc caataaaatg 300
 tattaatata aataaantnt aataatattc ttaaaattaa tctatattna tatataaaac 360
 ttataagggt tcttctcgcc ttttaataata tttagcgtnt ttaacataaa aattanattc 420
 tataacaatt ntattaagac agttaatatt tcattcaatc attcattcca gctntcantt 480
 aaaaaactat tgatatgc 498

<210> 1046
 <211> 582
 <212> DNA
 <213> Ctenocephalides felis

<400> 1046
 cctacacaac tcganatact cataaattat taanttctaa tcgattncct gaaaaagggc 60
 gttgggattg gtgaaagtgc atttattcgt tacatttctg ataacttaaa aactatttgc 120
 ggaaaactaa aaatatgttt ggagaaaata tagaaaattg aatagtctaa aacattttcc 180
 taacatagga agaccctaca gcaactcggn atactcaaaa aagtttggtg aaaagttgat 240
 aaatattcac agcgcttcac tgnittgttc ttgagtttag gaaaagtgc tttatttata 300
 acttttgaac gggttatttg attggaatga aatattcggc aaatttatag aaaattaaat 360
 aatctacaaa nttttctttt accgcaacag aaaccaacga aatattccct tcggctaata 420
 cggtgaaaca tcacaaaatg natcgaatca atattttttt aaaattgaaa attgcaaag 480
 ataaatggaa ttggatttat atttttttct aaaaangaat ggggaactat tccaaggaat 540
 ggggagaatgn aagaaaaata atattattcg atngngaaat gg 582

<210> 1047
 <211> 472
 <212> DNA
 <213> Ctenocephalides felis

<400> 1047
 cccggnnttg gtgatcaaca ccaaagacac gtcagaatt ggcgttccat taggtaattc 60
 cagggtcacg agagtcaaat catcaaagg gtagcgttct ttaaagcgtt tatccaaaga 120
 gtcccaagta ttatccaatt cctcatccac aaccaaggga tatgtattct tcgaatccaa 180

actaagttta tcagtgcctt ctacaactac agtgactaca gcttttaggta attgaaaagg 240
attcaattta ctactccgt cccattcagc agaactctgc tccgatgtca atcctaaggc 300
tacggaatac aattccttta acaaagattg gggtaaagga gtctcgctt ggaattggac 360
tccatttggg gaatttaata cactcagttc gccgttgcaa tatatggatg ccacaagggg 420
cagtaaataa attagaacct tttgcacatt ttattactta cggataaaac gt 472

<210> 1048

<211> 221

<212> DNA

<213> Ctenocephalides felis

<400> 1048

aagcagaaga tgagattaat ctgcggaggt tgttgacaaa ttaccagaag atctggncgg 60
aaaattgaac atttcagcac ttccttcgac agaggaagca gaaaaactgg ccagagaaaa 120
atgcagaaag gaaagtggaa gcgacgatgc ttacgataaa gcttttgccg ccaaagatga 180
gctgaagact tgtttcacgt ctttgctgaa tatggaggaa c 221

<210> 1049

<211> 427

<212> DNA

<213> Ctenocephalides felis

<400> 1049

ccaataatta catttaattg aaagtgtcat taaaatattg accatgcatt atacaaatta 60
tatttataat tatngcgta acaaaataaa ataattttgt gctaaagcct ctgcaataaa 120
aagaactgac tcatatgtat aaagatttaa ttgtataaat gcaatacaaa ttaattacag 180
ttaaaattta agaacatatt gcatgacagt ttgttataaa gcataaatga ctgcttagtt 240
ttttttttta atgaaagttt aagacatcta ttataggaag atatatggcg gaaacagaat 300
cattacatat acatcaacat caatgtgcat tacttttttt tttaatttct cttcagatag 360
aatagatga atataaacat aagtatgaat tataaaattg tattgtatac tgtataaaat 420
taaattgt 427

<210> 1050

<211> 570

<212> DNA

<213> Ctenocephalides felis

<400> 1050

aaatacaagg ggttgatatga aaccaactga tgactgtgat gatatgaaat gccaggagtg 60
caaaggtaac ctttgtaatg tcgatgtttt cccaagaaat cgcagggttt gcaacgctaa 120
agatgatgcc aagggaagttt gtctcaagcc acaagatact tgtttgagta ttttaaagtc 180
acaaggatgat gccataaaat taggggtgcac cagcaacctg ttcaagaacc agaattctgaa 240
aaaaatgtgc gagaaaaaac cagaacgttg cccaacttgt gacaaaaacg aatgcaatgg 300
tgatgccaaa aaacacgaat gtgtttcctt tgatgaaaat gatgaaaatt gccttgacga 360
ccctgaaaaa gtcgagacga agaccaaatt catgggcaaa tgctacttag atattgacgg 420

agataaagtg aagagaggct gcaccgacac ctacaaatgc gataaggaaa cttgtctgga 480
 atgcgaggaa gagatttgca cgagcgaaat gtgctatgcy taaattgttt aaataatttt 540
 tgcaagtttt aaataaaatt tatcaacttn 570

<210> 1051

<211> 386

<212> DNA

<213> Ctenocephalides felis

<400> 1051

atagatgnac annctnactn ncgaaaaccc cgcgcgcggg gcagaggcgc gntcaagcat 60
 anggtctttg gtatttcgtt atggcggcga aaatatatcg ataatatatn gggattgggg 120
 tataggaant ganttaatat tttattggaa acaaaagttt aaaatagttt tgcttaacta 180
 ttatttatta aataattatt atgcatcatt ttaaaatcag tcatcattca tcataaatat 240
 cgatattcgt atttcaatat atgcacacc tcaattaatt tatgtatcaa ttatattgat 300
 tganttatit gcgaatttct cagttatgaa aatgcagcaa tgctgtgat agctcttct 360
 agaataagtg cgtggatatc atgtgt 386

<210> 1052

<211> 537

<212> DNA

<213> Ctenocephalides felis

<400> 1052

cctctctcag ggtaaagtga tatgagctga tttggtttca tttatgcaa tcttccattt 60
 ggcaagccac atttgtagtt tattgatatg ttcttgcggt tgcgggaag cttgatcagc 120
 actgtgatta tttttaaagg tttaacttat cgaaatacgg aaaagtcaa attcgatttt 180
 ctgaaaattt cacactaggt gggcttctta atataagggt gtagtgaccg aggtcgctaa 240
 cgcgcgacc tatgtggatg gtgtcaagtt ggacggacct gtccaagggc agtagtgcta 300
 cacattgnat atatgtatta ttttgtatta attttattca attacaattt aaaacaagct 360
 gtttgaaatg aaacctttgc ttccatattg tttactccag aatctaaaat tatgaataaa 420
 tgaatattct agtgaattat ttgtaaaagt tcttcttcaa cttagtatct aaaatacaac 480
 aaacaaactg cgcataaatc gagaatatta ttagacatca tgcagagtcc ctgccgg 537

<210> 1053

<211> 331

<212> DNA

<213> Ctenocephalides felis

<400> 1053

ggtctgaaac actttcaaac aaactcagaa ttatcgatga tattttggaa atgcaaaaaa 60
 tggctgatga gctaataatta ttggcacctc ttaaatoagt cgtaaccatt gaaacacttc 120
 gcaaatgtc aaaaaaagga ttgacttatg agatacttaa aaaagcttac gaaggaaagg 180
 gagaagaggg ccttgaacaa attttgaaaa ctaaagtaac aaaggcaaag cttactataa 240
 acaatgttgt ggtgtttttt caaaaacatg caaatgatgt ttaatgacct ttatttatca 300

gaaatatatt ataaaatattt aacatttttag t

331

<210> 1054

<211> 344

<212> DNA

<213> Ctenocephalides felis

<400> 1054

cagngattca tttcatattg gtatacatat ttctcaatat gncatttttc taaactttgt 60
gggacagnaa tataccaagt tccttcgta attgntcatc tccaatattt ccattatgag 120
gaatgcttct aagcattttt aaataactgn ctggnaatcc agattctaac gctccttgaa 180
taattgnctc aaganatata aaactaggct tcctatcttc tggaaaaggn tcacccgggt 240
gcaacggagc aggcagttta ctttgctcat atattcggca cgatacattt tcgccactct 300
tagttttgat gnttacatct ttagcaaagt atgtgtttta atgt 344

<210> 1055

<211> 264

<212> DNA

<213> Ctenocephalides felis

<400> 1055

cccatattga acattttattt ttagcgacta cattagaaat gtaatagata aaaatgttat 60
aaatctgcga atataaaata ttgtattttc ataaagaata ttattattct ttcttatttt 120
ttgttcatag cagaatattt ttttcgcccc aaaaagccga cataatacac cactaaagac 180
ttgtcgaaag ttgtggcgtc cgggactcgc aaattcaatt tgtgcacaat cgcgcggtga 240
aatgcacaat ttccatttct atgt 264

<210> 1056

<211> 647

<212> DNA

<213> Ctenocephalides felis

<400> 1056

tatacatatt tcagtgagan atcagcaata gtttatgatt ttattgacgt tgtgaacgga 60
catgtgntct gggngtttat aaatttgcgt atagaaacaa taataaatta cagtacataa 120
tactgatttg attttactac cgnaacgatt tgcttcagat atttccagaa aaatgttagt 180
tttcatacat tttatttaat ttaatatctc cgacttgta ttactaagcg aaattttctc 240
tctttttaat atagaattct ttatagtatt cataatagtg aagctttaaa gtatttctct 300
cactatcacc cttttttata caaacgcatt ttgagaagta acgtgaaagc ttactttcga 360
attggtgatg nttctatgaa tacttatatg tattataata tgnattaaat tgaatttttg 420
cgtttcaata gaacttcaat cataaatttg aattgggggt aatattgggtg ggggttggtg 480
tattaaaaga cttcgatatg aaaaaaatca atgggncatc aaatcctagn aggatatttt 540
atgnggatac ctagcacccg caatggnggn aaatggcaaa aactggtatg accccgattt 600
ttgacgaatt tttggtgggc gatggtgnaa actaaaaatt tntcgct 647

09991936 "112101

<210> 1057
 <211> 499
 <212> DNA
 <213> Ctenocephalides felis

<400> 1057
 ctcaatgaaa tncctattnt gntctttttc tgctttacag gatttaatgc aaactgnngg 60
 catannnaat tggaataact caaatcangt taaatgatct atttcagata aattattaca 120
 gtatcttttc atnctaaaaa ttntatnccg ctntacgcan ttttaaaacg gtctctgatt 180
 attttaataca tnatttgtaa taattaattt aatgcttatg caagcattct nataatactg 240
 taatttaaat attgnaanaa ttaaattgtt ntaggtttng gactagtgtt tataacagat 300
 aaattaatat attattgtng gattgtattt aatnntttta agaatattaa natcagtgtt 360
 tggnttatat agttnnngcaa tncgtgtctaa agtacctggg tatttttatt tatttttagga 420
 tcattatgaa gcaattgcaa anantttatt ncaaatttaa atttatatnt tttttgacca 480
 ngtgccaatt tacttgncc 499

<210> 1058
 <211> 310
 <212> DNA
 <213> Ctenocephalides felis

<400> 1058
 tttttttttt tttttttttt tttttttttt ttaattgattt aattaattta ttntaagcca 60
 ataattgata ttaattatgc attaatcatt gnatttatac tttcctagaa aactatacat 120
 cacatgttga aacaaattaa ggttcattgc ttctcgctt tccttagcgc ttgtttttaa 180
 tttgatccat tctttccgaa tcttggtact ntttgggtccc catttntcat tgggagtga 240
 cactgttttc aatgtatcat taatggaatg ttttctattt ttcaaataata tccaaattgc 300
 ccaaagnggt 310

<210> 1059
 <211> 215
 <212> DNA
 <213> Ctenocephalides felis

<400> 1059
 atctacaaca gcaccgataa cggcaacaac tttnccttgg gcacctgctg ctgctttggc 60
 agcataactc ctgctgttcg ataaaatcga tgcgatttta cccgattctg ttttgctcag 120
 ggttcgcaaa gtggaattga ttacggagtg catcttgtaa taaaatgtat agccagtga 180
 gttgaattaa attgatctca cctgtaagct actgt 215

<210> 1060
 <211> 275
 <212> DNA
 <213> Ctenocephalides felis

<400> 1060

agcaaaacgt ttccataact aggatatcct acttgaaagt gatggctatt gttggacttt 60
attgcatttg gtccaaaaat ctcaggctta taatattggc ccacagaaga atatcctggc 120
ctgtactgag aaaatgcgta aggtggtgga tggtaatcac agttcgcca ttggacaatc 180
gagatggcca ccaaaaatat tacagctttc atttttagtca cttggtgaaa taccacgaat 240
tgaaatattt caaccttcgc aaaaggagct tgtga 275

<210> 1061

<211> 330

<212> DNA

<213> *Ctenocephalides felis*

<400> 1061

nnnaagccct ttngaaaccc tnggaangan tctggcgccc tttcccgta ataccnagt 60
taatataat tatagcttct aaaataattc nntcacgatg tttattttgt ctcaacggtc 120
aaaataaaatn ctgatttttt tttttaaatg taaaagatca ataataaatg aagcaaagat 180
tttataaaca tttttgctaa atttttatgt aattgaatta tttttcatgc tatatataat 240
ttatattggt agttaattat tagagatttt ctaaaaaaaaa atgatctaaa atttggata 300
gaacaaattt ttcattggcg cctaaattgt 330

<210> 1062

<211> 126

<212> DNA

<213> *Ctenocephalides felis*

<400> 1062

tttactactt cagaattatt tatttctagt aaacaacgaa tttaaacttt tagaatattc 60
aaaattaatt gcgacaagca atattaccat gcactcttga agatttttaa aaaaagtagt 120
taagg 126

<210> 1063

<211> 116

<212> DNA

<213> *Ctenocephalides felis*

<400> 1063

ccgtttgtta tatattggca taaaatgca ttaagattag gctctgagac agtgattgaa 60
tgttattttt gttattttta ggaaatttaa taaaataatt attaaatcga aaaaaa 116

<210> 1064

<211> 333

<212> DNA

<213> *Ctenocephalides felis*

<400> 1064

aattaaaatt ttctaacatt cacaaaattg ntnntcaaan tccgaacgat attttcaaac 60
aataataaat taacaacgga ctttagcaatt ataaatatta cagctcacta ctacaaatta 120
catattttta tcaatcatat atatatatat atagtttttg ttttaagatat ataacaacaa 180
tgttttctatc gcacatatca tttaaataac tttcatatgc gacaagacaa gttttgcatt 240
aaaaaaatat atgttactaa tgacaatat tagaatcaca cttgaagact cctcctcgga 300
gcctncgggg ggccgcgagt aaaacaacaa tgt 333

<210> 1065

<211> 498

<212> DNA

<213> *Ctenocephalides felis*

<400> 1065

agtagagaat tgacagcagc nattgctgcg gaaaccgcac tcaactgaact tcagcagcaa 60
ggaaatgatg ttctcatggt tccattttata acaaaatgtc agctgccatt ggaaagtttt 120
cgattgttaa aaaccagcaa agccatagtc aataaaagaa gtttgaaata tcagattttt 180
ctgttcgaga atttaataact gtttactgaa cctactattg tgaacaatga agagtttttt 240
acctgcaaag actatatatc tggatagaat tttaccacct gtcgaatgtc agaagtcttt 300
atatgcattt accctgacga gttcagaaaa taaatctaga attttccata taaaatgctc 360
aagtggcgat gaaaggatcg tccctggatg actattatta ggaatatttt gtttcagcaa 420
caacaggcat gggaaaggaa gccatngaaa aataaattag ctttattctn ccgacaggag 480
ggcttccacc caanaacc 498

<210> 1066

<211> 264

<212> DNA

<213> *Ctenocephalides felis*

<400> 1066

aaccacgagc attcctattg ttaatgtcgt gactgacgta gcatcgatct tcgtttatct 60
tgcagactgc cacttttagct gccaatccg cagcagtgtt gcttgtgcag gtgtcatcat 120
tttcgttgca ttttacacat ttcagggat catttttatt acataggta ctattgcact 180
ttagacaaga cccagatgtt gcattttcgc attcttttct aatcgaatca gtttcaggta 240
aatcgaccaa acaacctttt ttg 264

<210> 1067

<211> 498

<212> DNA

<213> *Ctenocephalides felis*

<400> 1067

tgtgactcat ttggagttct tgaagggtgt tcttttacct aagctttatt agatccctgc 60
atgctcatgt tcaagctatg accagggtga ggatgttcaa ttatgtcgaa ttgagagtta 120

cattgcgcac tccttacacc tagtgagttc agaactgtta tattctcagc tcctgatttt 180
 gtgaaaagca tatattcttc taaaggntnc atagtatgat tgttgacttc aatatatata 240
 tttgagaggc atcctgaata gctttttgaa tgtagcaaat ctgggatcat ctgncgataa 300
 accaccgatt tgtatttcat tgattccttc ttaggagatt ttacaaaatt gacttcgggt 360
 aatatttcta aagatcttna agttctgtct attaacaata tgggagcctg ttgngatacc 420
 cttttggnat nagacgggaa tgcttagcac cgttttagaa aanntttctn gttaactttt 480
 ngcttccaaa cacaagac 498

<210> 1068

<211> 422

<212> DNA

<213> Ctenocephalides felis

<400> 1068

taacctctaa tgacgtctta acacgtaaga caaggcaagc agatgatgct ccaaaagaac 60
 ccgatttcaa cctagctaaa gaatacaacg actcctaccc ggtgggtttt aacatcattt 120
 tatgggttcg agtagccttt ttcttctcgt tacttgctat ctgtatctcg atctccacaa 180
 tggaccctgg cagggactcc attatttaca gaatgacatc cacacgcac aagaaggaga 240
 attaaagttt gcgaaaggag tgtttttaat tgtaaataga ttgttttagta ttattacaat 300
 gtaaccgagt tattaatttg tgatcaatat aaattaaaaa ttaaaataca atatctttgt 360
 tgaaaatcga attattgntc tatttatattt tttgttttac attcctagta ttaccgaatt 420
 gt 422

<210> 1069

<211> 288

<212> DNA

<213> Ctenocephalides felis

<400> 1069

catagaaata taatggaatt ttacttttaa cattgtttat aaactatact ttacaaatta 60
 attgtaatat ataaatataa ttatattatt tcataaaata tttgttctct gactagtgt 120
 gatgttttcg tgctttctaa ataagggaag ttatatagga ctgtatgcct ttctgtgaac 180
 aactctatgt atgttctaatt tttgttagga tttattttta taaaaatgaa tatataaata 240
 tataaccgca ttaaaaaaaaa aannannaaa aaaaanaaan aaaaaaaaa 288

<210> 1070

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1070

aattttacaat cagaatcaat cttacaatta gtgtagttgt ctatgagaga aaacatcggg 60
 cgttggtcac aaaatgatta acagttatag aatgccatgt gtttaatacg cagttttacaa 120
 tataatgtta ctattgtag ttggcatact gtaccgagtt ttattttttt tatgaaaaag 180
 aagatagagt ggccaaatta ttttggtcat gtgatatttg ttccattaaa gattatatga 240

gggcatgtgc attggttaggt gcatgattta atatTTTTgt accgttgcg aattgatttg 300
 tgggtggagat actgtattaa agngtttcaa atagttttga aactgctctt gtgtgaaatt 360
 tagtatagtc cccaattcaa tctaagangn cttgggtctt ccctttatgg tgtcagcact 420
 tggataaact ttattctacc ttatccantt attttagtta nnatgctccg ccccttnggc 480
 cagnatantt tgaaccga 498

<210> 1071

<211> 269

<212> DNA

<213> Ctenocephalides felis

<400> 1071

caggattact aatgnccgcy tttccactgt tncagnnatt ccgnaaacca ncnaccncgn 60
 atatnaatat gaagctattg gtnaatgggc aataaatgca caaattattt cacaaatccc 120
 gcatgagacc atnacgaata caagaattgg aagctttccc acagaggtaa taatagcacc 180
 tattatggga aatcaatcgc atatncagct tncaacatta aaagaatgca taaatgcctg 240
 ntctttcatt gngtctttac actcggnccg 269

<210> 1072

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1072

aagatttaaa caatatgtaa aatatttatg tcttttaatt taaaatgaat ttatangttt 60
 ttactataa ctagttaatg aattatataa atattttaaa tattgttaag cactgggttaa 120
 ttttcgtata actgctatgc aaaatactgt tagatttgaa ttaattttac tgaatcaaat 180
 gaaaaaaaagc aaagaaaacc agatacttca agtaaaactac acgtaaataa agaatgtttg 240
 cataatatga tattattata ctacacatgt tcttttgtgc gaagtaattg acaagttttt 300
 tgaataactaa acaggatgtg aaaataatat gtatataata attatatgca catttcttaa 360
 ataactgatt agttgncaaa atcacacgaa atggtagctn cccaatattt taaaagctac 420
 ctaaagtncct aaatccctct ggtcgggaagc taagtagcat caaacatgt ttncttattt 480
 acggtaaaaat taacatta 498

<210> 1073

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1073

aatgnttnca gatccagccn ccnaagaagc ggnttgnttg cttaaaccna tnggccaaat 60
 ttgagatacn agctttgagc gantcagagt tttcttgga aatgttaatg gtaaaatgaa 120
 aatatgaaaa atttcgcaat tnggacaaag attttcctaa catagaaata ttttgctgnt 180
 ttatgatagt aaattatttc ataattagna atttaattat attttaatat taattgggta 240
 ataacatgcn aattaatcga gaattgnttt aatgnttgat attttaacat taattgnggn 300

tgggcagata tttattaatt atatgttaag ttcgcgtntt tgctttttat ttaattaa 360
 ttaagattat tatattcctn atcatgggtt aaaaaaacca tgntntcatt naagggcnaa 420
 gtaccccaag ttttngntta acaagggtt ttaaggnta ctgcagctan gcctcngtat 480
 tacatattcn acacttct 498

<210> 1074

<211> 437

<212> DNA

<213> Ctenocephalides felis

<400> 1074

caagaaacaa gcataagatg gccatggcaa tgctatttta tgaggcagaa ttgccatgtg 60
 aagatttttt tccccgaaca ttatacaaga tttccactt agattttttt tattacgata 120
 gttattaagt agtcggcatt tctgtttag tagtagtaag tagtagaaaa atatgaaaaa 180
 aatatttgca atttattatc aaaaactcta atataagtcc cagatttttt tatctaattt 240
 tgtttattga tcaataatta ttattattat tattgttggt gttgttgacg atgaaatatg 300
 atttatatac aacaaattta tatttaaaat agatctttat aacttactga ctgnagatta 360
 ttggttaattg gnetggtgac caattcntgg tncccntggt tccattaaat gaaaaaaaaa 420
 aaaaaaaaaa aaaaaaa 437

<210> 1075

<211> 324

<212> DNA

<213> Ctenocephalides felis

<400> 1075

ttttaaccct ttntaaccnt tngaantccc cnngntttcg gcnaaggccc acaccttgtg 60
 tangcngct taaacttana ncctttcatt ttaaataagac aagaagtgcc attgggggga 120
 nctattgatt ttgaanaacc accattcnaa anctcttatg gaggaggaga tagttattca 180
 tattctgcac caccncccc ttctntaaa ntgaganaca agtgctcctg cacatccagc 240
 tgattatgaa ccaacggagt atggngaata tgcttatcgt cgtggtatgg attatgaaga 300
 tacaggaagt tccgctggaa gtng 324

<210> 1076

<211> 497

<212> DNA

<213> Ctenocephalides felis

<400> 1076

gaaatatgat aatatgttca aaataaaaat gataaaaata aatgagtgga ttatcaannc 60
 aggatattaa acataataga aatttttttt gaaagttagt gaaatttttt aagaaaaggt 120
 taatgacaaa gttgaattaa ttacctgtat gtttgaatat ttgttagcac ttttgcacta 180
 aacaagcttt ttttaacaaaa atgattttgt gagttaattt tccgccgaat aattagattt 240
 tgtaaataca aaattactaa aaaatttgtc ttttttaaaa ttattatttg aaaacacgaa 300
 taatattgtt ctctggatgt tggtcgattg gttttcgaaa attaaactaa tgaaactggt 360

gtgccctttg tacacgtgta acacttgacg agagatggga gatggntggg gngngttttt 420
 atatgtcagg ggggaatact taaattgtgg atcttaaaag gaagtcgtat taattgtttg 480
 tcaaaaagtg aaaaaat 497

<210> 1077
 <211> 354
 <212> DNA
 <213> Ctenocephalides felis

<400> 1077
 ttttaaacc tttttnaacc cttttaagtt ccgcgnaggt ttccgcccga ggncccttna 60
 attggtaaat atttataaac tacnttttta attttgttca aactaatttg gatannggnt 120
 tacgnntaaa gctatatcaa nttggataat aaattattgt aagaatttac tactcattta 180
 cagcataata tataaagcac accataatat aatattattt tatctataat acaccatggc 240
 tgttaaaaac accaaattta tattctcaaa tactaaccac atacaatcct gatttaaatt 300
 tgtataatat acgtttcaac tcaactaagt ctatcacaag aaattggacg tagt 354

<210> 1078
 <211> 387
 <212> DNA
 <213> Ctenocephalides felis

<400> 1078
 ttgntaaacc cntntnaacc ctentggaan tccccaannn tttccccngc agccccnaat 60
 aatnntactt cnagttaacc tancacgatt attnttataa tttttttgnt aattnnangg 120
 tctgggnctn gatgtcacct cactgnncat atgaacaaa natgtgacgc tctttataaa 180
 tttatcacta ccttatctat aatcatatca cctcacataa atttcataacc atggttgtat 240
 ttacaaaatt cagacagtag ttgcagagat gtattcgaaa tttgaatcat taaacaaaaa 300
 tattttgata aaattgatat gtctctcctt aaaaaaaatt gaatttctca tttataatta 360
 tttcttgntc tgggcatatg taatagt 387

<210> 1079
 <211> 467
 <212> DNA
 <213> Ctenocephalides felis

<400> 1079
 cgnaccaat gggttttccc naaatttttn ttcggnccgg accnggnggc aaaagtgnaa 60
 ccgttttttc cgnccgagga gaatggnaaa aattttnntc atggtttttt gggtnaccac 120
 caatnggcaa taaaaccttt tggttgcccc aatnggctng ccctttgtta aaccggggtg 180
 cgngcatccc ccccccccg cgaagnatgc aaagtggaga atggttaagt agggcttaac 240
 ccaggaaacc atcttgatag actaatnngg ttcaattatc ataagtagtc attatttata 300
 atccacaatg actggcatta atataaaaaat tgttaaaatt aaatgttaaa tgttttatgt 360
 angggccaac aaangcatat ntgtattctg gtattaaatt tantttgagc ttttgatctg 420
 ttttttataa ataacgttgc cgcttgaaaa aaaaaaaaaa aaaaaa 467

<210> 1080
 <211> 489
 <212> DNA
 <213> Ctenocephalides felis

<400> 1080
 annccnccnt caccgaangg gtttgcccca aaattttttt tggngcngaa ccngctngca 60
 aagggggnaa ccgttttttc cgnncnagga gntggtaaaa attttttcca tggtttttng 120
 gttaccanca aangncaant aaaccnttat ggntngtcca aanggcttgg cncctttgnta 180
 aaccggagtt gcgatgcatn ccncncccc ccggcggaag aatgcaaaag tngagatgct 240
 aagtagggct taaccagga aaccatcttg atagctaatt nggatccaaa ttcataagt 300
 gtccatttaa tataataatn cacaatgact gngcaattaa tataaaaaat tgtttaaaaa 360
 ttaaaatgat aaaatgtntt ttatgtangn gcncaaccaa aatggcatta ctttagtaat 420
 ttccggtttt taaaattttt aattttgaag cctttggaat tncntgttct tttataaaaa 480
 taaatcgtg 489

<210> 1081
 <211> 386
 <212> DNA
 <213> Ctenocephalides felis

<400> 1081
 nacctcnttg gatttgcccc aannggtttt gggccaattn ancctttcnt accnttnnca 60
 aattggnnccg gtanttnccg acggtttttt taaaccaata attaaggggc caccgggntn 120
 ncanttnna antnttccag ctentancnc naaataccat atttnttca atcatntatn 180
 tntntaattt aggtttgggt ttnangaatt ataccaccaa tngtttctat cggcncattt 240
 aatnaaatat cctttcatta tgnogancaa ggacaagttt tgnattaaaa aaantttntg 300
 ttacttaatg gacaatattt agaaatcaca ctttgaagac tccttcctcg ganccttccg 360
 gggggcgccg agnaaaacca acaatg 386

<210> 1082
 <211> 436
 <212> DNA
 <213> Ctenocephalides felis

<400> 1082
 gaattngnca ggcagcantt ggcttgcggg aaaccctgcc tcnctgganc ttcaaccagg 60
 nanggaaan ganggttcct catgggtccc atttttaaca aaaatgtcag ctggccattg 120
 ggaaaaggtt ccgattgggt naaaaaacca gcaaagccat tagtcaaata aaaagaagtt 180
 tgaaaatatc agatttttct gttccgagaa ttaataactg tttactgaac ctactattgt 240
 gaacaatgaa gagtttttta cctgcaaaga ctatatatct ggatagaatt ttaccacctg 300
 tcgaatgtca gaagtcttta tatgcattta ccctgacgag ttcagaaaaa aaatctagaa 360
 ttttccatat aaaatgtcga agtggcgatg aaagatcgtc ctggatgcta ttattaggaa 420
 tatttgttca gcacaa 436

<210> 1083
 <211> 497
 <212> DNA
 <213> Ctenocephalides felis

<400> 1083
 atntttngnt nccatngctc aanggcgnta ttggccccnc agccgggct ccaaaangct 60
 ncntngtccg caccgnctta ntcgtttggc angattatcc ntgtttaatt ttcgcctttc 120
 gtccccaaaa tcttttggga tcttgatcat gtaaaagtgn tttaacggct ttgcttcgta 180
 tgcattgcagg tgcattatct acgagaagaa aaaaattggt tgctggggga gagttacaag 240
 atcttatgtc gagactatgg gccatataat caatgggtgg gggctggaga ggatctgntt 300
 taagcattgc tgaggatctg agaaatcgta aatatncgat ccattcatgg acaggagaag 360
 taatgattn c tgagatgcat ggctatggta aaccatccgc attataaaaa gnggttgccn 420
 ccgcgtncnc ccatcncatt gntgtcaatt attnactggc tnctgacaat gctntggcgt 480
 tccaagatnn cctcatc 497

<210> 1084
 <211> 281
 <212> DNA
 <213> Ctenocephalides felis

<400> 1084
 aagtgttaact gtaattgatc cnttttattt taaattacag ntanaaatc cgnnaaaatc 60
 ttnaccgat gatatacaca aaacgactta taaaaaatta ttaaagcaaa tattgntttt 120
 actcttagac cgcggaacaat gtgccatatt gttgtaatgg atttttgata gaaatgtagc 180
 tttaaaaaaa aacatcttga ctcggnattt attattatta aatcatcaat ttgtgtgctt 240
 tacaactaag ctatatttct gatccaaaat gcaatactgc t 281

<210> 1085
 <211> 489
 <212> DNA
 <213> Ctenocephalides felis

<400> 1085
 tttttttttt tttttttttt cgntttccgc atntccacaa gccaaaacca agcctgngcc 60
 agcattaaaa acccaatcct tntcngttn tttcagngct atttcanata ttaactntgt 120
 ttntaaccgn ntnaatacct tttcaggatc gcgtatggcc tcatttttgn gtgtnaacct 180
 gnggncaaca tcgccaatcc atgttacaa tcgataccta cgattagcaa acatttcacc 240
 gagtcccaaa cgttntnta acctatggna ctgnatagct aattganggc aanancgcca 300
 tgctgttgcn cagaatccaa accattngat ttattgggtt catatctgnt ggactaacgc 360
 attcttttag ttggtcttga gaaactctaa atcttcaaag ttgggngnga gaacaactaa 420
 acgagngccc tgaatcgnaa attntccaaa nattncnt cccggtttta naaganggga 480
 actggngaa 489

<210> 1086
 <211> 389
 <212> DNA
 <213> Ctenocephalides felis

<400> 1086
 ccnggccagg tccattccag gangtgggaa cctttttaag gaagnctcct nanggggggc 60
 atttncccn ngggggaccg ggaaaaatcg cccattagct tgggtcggnc cctggccnat 120
 atgtaatngn ccaagggggt atccccctctt tgcaatgggt gggagggttg ctgggaaaaa 180
 ggtactttac tcctatcttc tcaagactgg caaagggatt taaacttctt tagttggaat 240
 ttgggggata ttagattaga aatataatgg aaatgnga atagaaaaaa aattaaatat 300
 acaatagtat tttaaattgg ccacatctat ctatgcatnc ataaataaag gtatatacag 360
 cattcaaaaa aaaaaaaaaa aaaaaaaaaa 389

<210> 1087
 <211> 499
 <212> DNA
 <213> Ctenocephalides felis

<400> 1087
 tttttttttt ttttttttgg taaaaaat tttcttttatt aaantgnttt accacccana 60
 taatacctct ggcntaaaat tggaaattat tctaacaaaa gtttggggnt atggcatgaa 120
 tgccacttaa cactaccagc aattttgtct cagcataaaa tttcataaat agaggagctc 180
 aaaaagacaa aataaccata atatagtcac taacattaac aaaaatataa tattatctat 240
 taaaaagnaa agcaaataa atctttgaaa aatattctta cacacactca catatatatg 300
 cctttgcata gactccgaat ggagcgagat caaaataata acatgggcat catcncactc 360
 aaagacaaat agtataataa taatatgcgg gtaaataatca ttcattcatt tttttttttt 420
 attgccggtt atccngggcc caataataaa antnaatttt catattaaat ttaaagncaa 480
 tttggttacc gnngaagga 499

<210> 1088
 <211> 303
 <212> DNA
 <213> Ctenocephalides felis

<400> 1088
 tttttgggca aaaagactaa caattaataa ccaacacata ataaaaataa attgntggga 60
 tagaaaattg attcaatttt ctactcgatt aacaaaattg ncctttatct gattatngn 120
 tgggntttat tatatattat tattaatatt gatcgatgga ttttaattaca ctgattttgc 180
 atttaagtga gtttatccta ttattgggtg gttttggtat ttaattaatt gaccagcgtg 240
 agaagaactt tcttgnagtc tcctgatgta tcgncggaga tcagctctcc aaactctttc 300
 cgt 303

<210> 1089

<211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 1089
 acctaattatt ataattattaa aaacaaatca ataaaaataaa tagcaaagta aatttttagtg 60
 ttaacttttat aaataccaat catcattttt atatgatttg tataaaaaact tatattccat 120
 aaaataattt atatatcatg aacatagaaa gtgtttatgt atcatttcat tcttatatca 180
 atctaaaaat tataatatta tgaaatataa attttagttg taaaattgaa atatgtcgag 240
 gttataaatc ataaaaaatt ataataaac tatacctcct aaaatagcat tgccaatagt 300
 ttgttttatat aaacttctgg cgatcgaact tcttttcggt catttcccga gattaaacat 360
 gaaaagccca cggttttcga atgcattgaa taaaatgatt tgcttaatcg cagcctaata 420
 taatattcat caggctatta tgaaaatatt ggatacaatt tttatataaa accattctnt 480
 agaaccatta gaaaatat 498

<210> 1090
 <211> 499
 <212> DNA
 <213> Ctenocephalides felis

<400> 1090
 ccccccgag ctttcnaatt ggtaatggtc gggactggac gtngcatcga tctttcgntt 60
 tatcttggag actgggactt ttagctgcca attcccgcag cagnggttgc tttgtgcagg 120
 nggtcatcat tttcggttga ttttacacat ttcaggggat catttttatt acatagggtta 180
 ctattgcact ttagacaaga ccagatgtt gcattttcgc attcttttct aatcgaatca 240
 gcttcaggta aatcgaccaa acaacctttt tttgtttcag tgccgntaac atagatgtaa 300
 cacaatcctt cacatttttt ttctcccccg catccgttga catgacgggc gctcgaaatc 360
 ttattattgc atgtagcacc gcacaagttt tgcaaagagt attgncatcg cagatatcct 420
 cgtgcgcacc ctcgattact ttaccttttc tagttagcgn agcataatct ccattcatat 480
 gctaacaatc ttgcttcga 499

<210> 1091
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1091
 cctggctaant ntttaagtgc ttgggattct ataaaanttg gnttttaaaa aagctggatt 60
 tataatacaa agcagggtt cnttttcgat ttgtcacata tatattaact tttttcaaat 120
 caatttatct atgcatttag tttatccatt ttctaactta caaaatataa ttctaaatag 180
 ttcaataagt aacagaatct aataataaca taaaataata atatataacc tctggacagt 240
 aaacatggta gagattttta aatgacaaaa cacattcttg aaaatgaagt tcaaaacaat 300
 atctagtttt gatcaagagt ttcttttggt atgactaaag ttttcaaaca tcacgtaaga 360
 atggnaataa ttgacttgaa taatgcttcc tatcaatcaa tttttatgta aatcataaaa 420
 ggtaaaatta aacaggantg ctgntataaa attactgnca cttccccaaa atattatttc 480
 atctctaatt accatagata 500

<210> 1092
 <211> 308
 <212> DNA
 <213> Ctenocephalides felis

<400> 1092
 ccccttcagt aatttctttt tatttttaaa ttancgaaaa atcaganaac agttattcca 60
 aagatcatgg gnccttgntgn ncttctttaa gcttatttcc taccctaaag tgtaactat 120
 tactacctaa actgcgatga tatttgatga gaatgatgtt gacatgatgt ccgaagacgt 180
 tggctaagat gcggnataat tctgttcctg gtcacatcgt gttcccttcc ctggtaatat 240
 ttacttggtc ccaatcttca gcacggccgt tctaactgtg agcaagcttc gagccagttt 300
 cttcaaag 308

<210> 1093
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 1093
 tatcagatc acccttacgt gaatactccg aaaaaatcat tgaagcacga agaacagaag 60
 caccttactt actaccacgg cttttaagcc actacgatag ttcccaaaca agacctttat 120
 ccagcttgca gcatctcatg atcgatcaaa acaactttaat cgaaggcttg aaattgggtg 180
 gtgtcgatgg atcttcatta aaacaactag ctcaactttg acattgcccg ataactatga 240
 acatgggtca cagacatagt tgggtcgagg ctggcacttc tttaggaagt gcttcggnnt 300
 tgagctcttt aaacaacgat gtggatagcg cacaagntca ccaggattat ccaggaaaat 360
 taacacccga agaataattct ttttgtgtca tggaaocgag agtaaatgga ccaactgnnt 420
 ctggacaatt actgnagang gaccatntaa cgctttgcca agcgtttana aatgancatt 480
 tntgaatgtg nccnaac 498

<210> 1094
 <211> 228
 <212> DNA
 <213> Ctenocephalides felis

<400> 1094
 cgtttttnaca gcaaaaaaacc aagccttgat tggccgaagt ggtcgggttg cttctcatgt 60
 ggattcatat aatcaagct tttgtggttg ctttgtgatg aatgggtgct ttggttgaaa 120
 ttggncttcc atggttcatt taagattcaa cgatcctggt gaattgggnt gaaccaactc 180
 ggctccaaaa tcaggcgacg aagaagagct ttctgaatc ctctccgt 228

<210> 1095
 <211> 308
 <212> DNA

<213> Ctenocephalides felis

<400> 1095

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cctaattggng gttttangct aaccangaaa aataagggtt aaaaaaggnc naaccttnaa 60
atgggataaa anccattaaa atcantttct ttancacatt ctagtcacac actttgatcc 120
gaaagggtgc cccgaatcgg cagaatttat gaattttatt ataaattcac aatgatcgca 180
tcacataaaa ttgnctttta atctgnttat cttgcaggaa aaatatcgca aacacgtttt 240
ttnttggtt ctaactcaat atttaacaca cgtaaattat cacaccgtta ggcaagctga 300
tggnctgg                                     308
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<210> 1096

<211> 335

<212> DNA

<213> Ctenocephalides felis

<400> 1096

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ctttctttta aattgtaaca tctatatcat gaaatcatga tcggctccct ggtttatttc 60
taccgattac tacagtatta tatttataat atgttcaata tagcactgng gtccaatttt 120
attttgacca aaggtttata taaaaatcca ggttttcttg atcatgtaaa atgntgggcc 180
attatcttaa attattatat tcagaatgat atataatcca ttcaactttc taaaacaaac 240
aagaaatctg tgcaacgtct gatatctgng aatatgtatt ggatttaata tatatgttaa 300
gngnttaaaa atatatttct atttcatata cttgn                                     335
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<210> 1097

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1097

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ccttagacct ccaaattctt ttttaaggaa aaatccccg gaaaaatagc ccttncatat 60
tccgcctgnt tatacttggtg acaagnttaa aggatttaat ttaagcgact tctgtattta 120
tgtaattcac ctactctaaa ttaagactgn aatttatcat tatctgacat agttttttgg 180
ttttacgtat tttttattaa aattcttggtg aagttcaaca agtagaatat tgnnttttta 240
attgggttat ttggacctta gaattattta aaataactta ttacataga gagagcaaga 300
tgcttaaatt tatacaatat gtcgagtaaa accaaaaaaa acgtaaactt gcatgctttc 360
tagacatgct gctataatca taaaaaacag ttttgccatc ttgaaataag gcagacttat 420
attatataca ttaataatgg ntcgacacnt attgtgntca ttggaatgaa ataatacagg 480
nggaatataa ttttcttntg                                     500
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<210> 1098

<211> 392

<212> DNA

<213> Ctenocephalides felis

<400> 1098

cacnntnttt	ntntaagttt	tttcçctgta	aatngtaa	atgantttgg	ttngnga	60
tagtggcngg	ggtncatggt	aaccaaact	atgggacctc	ttggataatt	taatcactta	120
tttatatttg	cccgçgtgg	aatattttaag	atatgaaatc	tatagaagcg	atcçtttgta	180
tgacaaaggt	gacattgtta	atcatatatc	caatgatttg	cgacatatgt	tatgggtgcta	240
tttgccçtta	aaaatçtaca	tgtgtagtg	atttgttctg	çttçtacgtg	ataaatgçtt	300
ggatatagng	tttgatçttt	ttataaatat	catatatatt	ggattaaaca	atcaaaagaa	360
ataaaaaatgt	aaaaaaaaaa	aaaaaaaaaa	aa			392

<210> 1099

<211> 362

<212> DNA

<213> Ctenocephalides felis

<400> 1099

tttttttttt	tttttttttt	ttttttcant	tttctatctt	ttattattta	agccataaat	60
atatatatag	tataagnata	ggctaactac	cttttattat	tcccgaaac	atttcaataa	120
tttcaactat	tcttagattt	tcttttnattt	ctcagacaaa	accacatatg	cttggttaatc	180
tcaaaacgaa	taattatcat	ttttgtttat	gactatataa	ttatacatat	gcgggcctac	240
ttagtattca	naaatacttt	atacaggnag	cttatcattt	tagataatat	cattcaattt	300
tgttattttgn	attacttcaa	taaaaataac	acctaataata	ttttttcaat	tgatgaaata	360
tg						362

<210> 1100

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1100

caangaatat	anggggttttt	antggcacca	taatggcttt	taaacttggg	gttggttggga	60
aaaacaaatt	tgggttggag	gggataaccg	ccanttttag	gattcaaaat	acctccgccca	120
atcacacaaa	aacactttta	aaattccttc	taccagaaaa	aaaaatggca	aaaagaaaaa	180
cacgttttta	accagttaca	ggagtgnatc	tcctcaatcc	aatgaaattt	tatgcagttc	240
tgttcaaaat	tatatctgnt	gnaatattta	aaaaagttaa	acttttgctt	aaccaatgaa	300
aataagatct	caatagaaga	cttaaattaa	atatgatagt	gatcatgagc	atatgttcat	360
aaatcaactt	tctgattgat	tttctatgat	aatgcattg	ntacactat	ttacttacta	420
ctacacggtc	cttacaggaa	tgnatataaa	ttaaaatatg	catatattta	tattcattgn	480
gggaaaccgq	atttgqaa					498

<210> 1101

<211> 319

<212> DNA

<213> Ctenocephalides felis

<400> 1101

ctacntnaaa gggggtggct tttcttaagc agntggcata ncccaaggca gcacccactg 60

caaanggctc ttataaaaaa naggtatttc tttggcaatt taaattcttt ctttcanctg 120
 taagacccgt gataccatt ttttttggct tttcttttga tttttcttta agcaattccc 180
 tctgctttgt caattttcct atcaacaaat ctctcaattt tatccattaa tttaggagtt 240
 tctccagtaa caagcctctt caattttatc tgtcacctta tcagcctttt tagttacttt 300
 atcccagtca atagaaatg 319

<210> 1102

<211> 283

<212> DNA

<213> Ctenocephalides felis

<400> 1102

ttgggcnttt ggtnggtatt ttaanaacaa gaagcatttt nttgggactt ggacttttca 60
 ctactcataa gaaagcatca aaagaaaact gggncctgggt attttgggtgg agggttggga 120
 ctaaatatca tcgactnggg gttttactta aaacttttcc ctcatatcct taaaaatctc 180
 ttgatgggct tccaaaactt gtccgagaat ttcacaaaag taacctccgt tccaaaagaa 240
 ctttttgtca aaacacgtgg ggttaaaagt gcaggtcaca agt 283

<210> 1103

<211> 287

<212> DNA

<213> Ctenocephalides felis

<400> 1103

tatcaagcaa actgaatttg atctgaggta aaactgaatt caaganataa aagcatcacc 60
 nantatgtat agataaaaga taaagattgt aaaaagtttg agaaacactg tttggatggg 120
 gaaacgaaat atagaaaaca caaaagttaa aatatatata tactcagccc caaataatat 180
 aattttaa at tatgggtaag tttgtttagt agctcagtgg taatagcatt agccttgcaa 240
 ccagaattgc agattccatt ccctcattaa acctgatatc aagcagt 287

<210> 1104

<211> 434

<212> DNA

<213> Ctenocephalides felis

<400> 1104

accatatcnt atttttggan taantggaat gncatttaat ttggctacta atacttctat 60
 ggaaattcat tttttaaata aggtggntta aataaataat ttcattnaa agncacatca 120
 aaacttttct ccaaatatag ntctataata tttagttttt agcctgntat cactattaga 180
 ttaaattata aattgnttgn aattggctaa ttgnaaagng nttataaatg aacttttgnt 240
 gncatttgnt atgaagatat atgtattttg aagcatattt tttgtaacat tgtgcaaatg 300
 cttatttggt tgggtgnaat aggaaaataa ttatgattct tattactcat taaactataa 360
 taaatttttag cccatggtaa acattacaat taagtatcta tttagcaaaa aaaaaaaaaa 420
 aaaaaaaaaa aan 434

<210> 1105
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 1105
 ntttgagccc ctccgngtct tgaaagcccn tnaanggggc cccgggaggg ggaccaagcc 60
 caaaggntta tttgggttct tcnacnggta atcaaaaatt ggccttttat attttaaaan 120
 tggataantt aagntttant anttggcccc cgganaatcg ggccataaaa aaaaaaaaaat 180
 ggatggatgg tttttaacnc ccnaattatt attataccat ttggtctttg ngggggggang 240
 aatgcncctt gntattattt tggaccccg ccccttcggg ggctatgcca agggntatat 300
 tgggaggtgg ggggnaagaa tttttttcaa anantatatt ttgctttacc ttttaataga 360
 aaatattata tttttggtaa tggtaaattg ctatattaat gggatatttg gtctttttga 420
 gccnctatt tatgaaattt atgctgggac caaattgctg gnagnngtaa gtggngcatt 480
 catgcntaa ctnccaac 498

<210> 1106
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1106
 ggnntttttg aagcccttnn nnnaaangaa gctcttngnn agctcnaatn ncgttnggcc 60
 gaccggcccg gtncaacagt ggcattggacc ttggccttta acggtcantt ctaaggatgg 120
 gggttnttta ntcttggggg gggatatggc tttangggcc ttaaattctt nctnanganc 180
 ccaaattact aaatcannat ncaagccttn tttggnttgg ccttttangn catccaagcc 240
 agntaatttc gcangggccg cagataataa acgagatcat catgagcttt aaagnocctt 300
 ttaaaancac cggggcataa taaanatatn caaactggat accaacaatt ncaccccaag 360
 cttttaagga atcaaggngg acaccattgn acaggccttn antgcacaag tggaggngaa 420
 tgacactgct tncatatcat atctttgttt tcaaagcttg cataattttc tggatacctt 480
 cttctctaata gggggagcga 500

<210> 1107
 <211> 370
 <212> DNA
 <213> Ctenocephalides felis

<400> 1107
 cctaccttta cttctcact tacccttacc tacgctttac cnacccttnc cnacccttnn 60
 accccgggcc tttttactgg ttactnacta ttggctaggg gntttggngc tnaatcnccn 120
 ncgaagagct nctnnaagaa agaacaggca aattttggnt nacaacctnc attctttgnt 180
 accnatcatt antatggcna ctactctatg gncacnatac gnttaacaat caggcaatct 240
 gntcttgggt ttgggggncg gggattgaaa cccgaatcgg gnttcgaaaa tgaacannaa 300
 tttttggccn tattaaatgg tggtaaaata tnccaattaa tggattattt catcactttc 360
 gnaannnaaa 370

<210> 1108
 <211> 149
 <212> DNA
 <213> Ctenocephalides felis

<400> 1108
 tttttggtgn tatatcactt tcctttgcag gtgcctntga accggggcgtc ttattttaa 60
 catcgctttc ttgattatta tcctcagcgc tttcctgatt ggtatcgtct ttatgcgtca 120
 aagttgcaa gatcgttgca ttatttggt 149

<210> 1109
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 1109
 atattagtaa taagtggcca tcaaagatat taaaattaat ttgccagtcc tgtttattgg 60
 gggangaact tcaaaatcat ctattacaag gattatttca agtgccattg gtagataaaa 120
 cataaagtag atatacctta atgccaggag tatatatata actaatgaaa aatgaactaa 180
 atttgaactg gatttcaaatt ttgactgga tctgtaactt tttgtagttc ctttctatta 240
 aataggatat ttgtattcac cgcattttat gacctgaagg aggtcaaata ttccactgtt 300
 tcttttgcac aaattttatt aagtgatagt aagaatttta tacttagggc taatcaaaag 360
 agccggcaca cttatttttt ctaatttcat aattaaaaat tggctatatt tgcctaagt 420
 tgnaaaggtc ttagttattg naaaattata ttatagcgat agattcattt tcattgtggg 480
 atgacttatt gattgaca 498

<210> 1110
 <211> 400
 <212> DNA
 <213> Ctenocephalides felis

<400> 1110
 tttattctat aatgaaatga ataatgntac tccaaatata atagtatgtc tttcatggna 60
 aatttatatg tatatatatt atatttatat atttgnatat atgcacaatt gtgtatgctt 120
 atatctttac atatgtgcaa atatagtttt atggatgtat atagtatgtt aagaatattt 180
 tatgtaattt ttattaactc gtttaaaatt gagtttatta cttctaaaac cacttgcaat 240
 ttgattgact ttttggatac tgntctaatt aaagtatgat gcattttaaa tatgaaaata 300
 gaaatagtta acagtaaact aaacaagctt tgttgctagt gtaaaatgga aaaatcattt 360
 atgtttttat agctttttaa catgtttcaa tttgataagg 400

<210> 1111
 <211> 379
 <212> DNA

<213> Ctenocephalides felis

<400> 1111

caaatattgg tgcatacacag gctcatggga tatttataaa acatagaatg nggggaatat 60
atcaatcata taaaatttac atgcttcata ctacacaaac aattaaagat caaacattat 120
ttttatataca tttatatata aaattgaatg atcaaattct ttctttgcaa aaaccacata 180
ttattgaagc ataaatttag aaatcaaata aataaaatag cacaccaaac attatgttat 240
tagtttatgt gtcaaatacac atattgttat aaattttgag taatatacaa ttataggcgt 300
gttttttaca tttttcattt cagaggtctt taaaacttat acaatatatt atttactatt 360
attgttaaaa cggttttagt 379

<210> 1112

<211> 486

<212> DNA

<213> Ctenocephalides felis

<400> 1112

tttttaagnc cccttnttga aagccctttg gggnttancc gtgggtccnn gggcggggggt 60
ccccccaagg tggcnattggg ggaaancnta ccncccaaat tttttttaac caatttantt 120
aataccttan tgggcctaag aaaaggccga aggtggtaaa ggttcaaggg gttggtatta 180
gcttaantaa aaggtaaaac tttttaaaaa nggtgatgga atttatctgg caaaataggt 240
ccaaaattca aaaaattact attattaatg gnntattgga aataatgctt tttattagga 300
attggcattt tcaantctgg tatttaaaat tggtntgga aaatcaccag caccaaggat 360
cccaaccaca cantttcatc tnaccagaaa gaacnaaaat taattttaat gggtattaaa 420
aattacatta ttaaaataac tttttacnaa taaaggtaac cctacnttga gaatggtgtt 480
ggtttc 486

<210> 1113

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1113

ccgacnggtg gaaattggca ntgganccag ccnaaantgg nngggcccg gcaaagggtan 60
taaaagaant ggggattggg cantttattg acgggggcaa naacttttgg cgaatttttt 120
ttaacacata ttttttagaaa tggacatatc atagttaggg tggggattcg aaaaactgnc 180
tttancatct ttgaaaata aggtatnttg ggcagncttt cggatctggc tgatatccta 240
caaccgcgc catgtagttt ctgccgctta caagttttcc caaggttttg atgagccata 300
tcatctacac aaaatgggac atcggaattg aagctctgca atngattggt ggaattgggg 360
gttctttgtc acgccacttc aaagtanaca atcgtgacaa atgttccant ggtattatac 420
ctnggcggga cccgctaagc caaatttgag attcatnaan tggnggccgt ngagctgctt 480
taaggccaat cgcctatagn 500

<210> 1114

<211> 500

<212> DNA
 <213> Ctenocephalides felis

<400> 1114

```
gctagctaca agttgttgaa atattattaa attttattat tatatttggt ttttttctgn 60
atgggggttta aattacattc catgataatt ttcagtttta tataatctaa taaattcaat 120
ttaactgttg aaatttgatc atattgtgta tatacatagc aatataaaat ataaagttac 180
acattgtctg tttcattata actgtactgc aaaattaatt attttgattg tttgttactg 240
tattattaaa gttattcaga ttcagtcaaa atttaaagt ttggcctaaa cttattattg 300
aaatattgcc aatagtgtat tattacttag caattatgta taaagatttt atttattaaa 360
gcaatattcg aatgtctgta atatcataaa ttatgtatat aaataaatat atcaatgtga 420
acaataacag agaacataag ctcaaaatca tcatactatg tctggaaaat caaatataaa 480
tngtttttag ngtaaataaa 500
```

<210> 1115

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1115

```
tttntngtt tttttttttt ttttttttgg ggattagaaa attaatattt catttaaaaa 60
aataatgggg tattacagga ttattgtttc tataaacaaa ctacataata tggcatgatt 120
tttttcaata atcaatttga ttcgcaaatg aatcttctgg ctggatgcag attttgtcgt 180
tccatccttc cttgctggat ttgnatactg cttctacaca attttctttt cctctgtaat 240
tatttgggtc accacgaacc catttttcaa aagtcattggg ctttgaattt tcaatatgcc 300
cacaaatttt gatcgatctg ctagattgtt accagctgtc caaaacattt gtttggcagc 360
gtaattgctg ttaacaaatt tctcaaattt tcatattgna atggagntca atggntgcca 420
ccctgcgtcc aagctttttt accaaaagca ttttgggtcaa ccagttcact tangaggncg 480
aaaatgaaaa ctttttccgt 500
```

<210> 1116

<211> 317

<212> DNA

<213> Ctenocephalides felis

<400> 1116

```
aggggaaaa tctttttttt gaaaactggg attctgnagt ttgcncgccg ggtggctttg 60
cgacgttttt agttccttga acgacataat cattattcat ttcttgagag tctatcaaac 120
tgattataat tgcttcgttt tcgttcaccg cagttttggc ttgttttatt tccggtttct 180
ttttagtttc aagttctaca tttgtctgac tcattatatt ttcggttaca ataagagggt 240
cttgcggttt ttgtattaat tttgcattat ctaatctctt agtatcttca acaaactcac 300
tttctttttc acgaagt 317
```

<210> 1117

<211> 307

<212> DNA

<213> Ctenocephalides felis

<400> 1117

```
taccgtattc aggtcccaaa ccatcattaa aatggtagca ttaatcaaaa atcaaagaat 60
cattattcaa attccaagga agtaaaataa aaaataattt ctttattcac ttattgggag 120
tgagtataaa tctaattttg gattcccgat gattggtgca aagctccatt agtctttatt 180
aatacatttt tattttttta tttatttgca ttgtaattgt tgattcagac accgcacacg 240
accgccgaca tggcgctgta gtcttgctcc tctgccggcc gtaacgtcaa agtaatttgg 300
ttgttgt 307
```

<210> 1118

<211> 374

<212> DNA

<213> Ctenocephalides felis

<400> 1118

```
ctgggggaaa ggntccaac cnagnngccg gttttgcaaa aaaccactct tggctggttt 60
ggaattctca tctattaaat taagaantct tttgcttcat ttcaattatt ttcaaaatat 120
gattgatctc ttcttcagtt ggnggntccc ggccgtctat ttgcgaacca tgcttccatt 180
ctgcagggaa ttcctgatca aacttttctt ttattgntgg ctcaaaatat ctattcgctt 240
tgcgtttacc aatgctagga tttcctggag tttcataata cttattgcct aggtgatctt 300
ttccaataaa gtttgcttta atatttgctt ttccaatctt gaatgagtta taaaggtttt 360
aaagacttga aggn 374
```

<210> 1119

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1119

```
tttatcaaaa atcctagttt atgagtagtg tgaagccaga aggccgtaag gtcgtgaaag 60
atctgaacgt ccatcaacat cttcaatgga tgaaatcgtc gcctaagtca agaaatgggtg 120
ttggtaaact accatttagg ttcagtcaag ttagtttttg accttaacat atctaacaaa 180
tcaattatac catcaaattg ggcatgagac gctttgctgt tcatctctac catcattggt 240
gaactctctt cacacaacgc ctatatttg aacgcttttt tggccataaa ctcatgaaat 300
atcatgggac aaccaacgta ttcactagat ctatccttct gtaaattatt tattgtcatg 360
gatacttaag tatagaatta caagtaatac tattgttaga tacctctttg gatcgataga 420
ttccactaca atggttggtg agaaaaaac gccaaagggc tgaagaatat ccttataaag 480
gcgttttaaaa gatgcttt 498
```

<210> 1120

<211> 455

<212> DNA

<213> Ctenocephalides felis

<400> 1120

```
gcgtnacata tctggaattt ttttggtgaa ttatttttaa tgtaataaat catagtaata 60
tttattttcca angtgcaaat atggaaacta ccatccctat attatatata attgtatata 120
ttcctgaatt gttttatttg aattttattt aaacacaaac ttttaattata ttcaaataat 180
gatggatgtg atttcatata tccctaaact ttggatcaga gtttgagaga agcctagcca 240
tagtgtatag aaaattatgt gtaggtgtat aattaagatt gcaggagtca aatatataaa 300
gcattgatac aaattataca ttccaatttt ctgtaaaccg tgttctttgg ttgattatgg 360
tttatatcac aatttatgaa tcatgtaaat taattgtaaa ttgaaatgt atctncgatg 420
tnaatgtatt gaaaaaaaaa aaaaaaaaaa aaaaa 455
```

<210> 1121

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1121

```
cttgaagccc tngggagnac nnaagccctt cggcgncnccn cagggggcna cctcccggca 60
ggggctcgtg gggtagttct tggcaaatta attattattc attaatatgg atttatatng 120
atatggaata aaaatcccag caatcacatt ctatcaaaaa taaacttaat tcaattcagt 180
ttggaaagtt ttaatcacia agtctaaatt atcataaata gccattatca actgcatgcc 240
gaacattatc cactaatctt aaacgacctt ctttatgagc aattggacgt actttccata 300
ctgttggtat aggcacagca tcatcgctct ctatcatatc caagtctggg catcatcatt 360
tttcataaga gtgaatggca ctgattctaa gctgaatcct aaaccaaatt ttgaatatat 420
ttttaactca tcatgaaatg catttttttg atacattttt tctgggctgc tccaatttct 480
ttaattgagt agcataagcn 500
```

<210> 1122

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1122

```
ttggattatt gnaagacaat tgcaattata tttcaacaac tggnttagtt accgaatata 60
atttatagga ttcataaaaa ctaattgngt tcaattatca ttcacaatat tcataaataa 120
gcaaataaat tattcaataa aatatataaa attgatgttt ctgtaacata tatactataa 180
gataataata ggattgntag aaaactttta attaaagtga agtctatttc ttttagttctt 240
taaggggctt gcatttagat caatttcaag actattctca ggactagaat tcaattggac 300
attattgate tctgcacgat gttttccatc agagacagtc gttacgcttc tgtaaaatga 360
ggaccaagcg ggcatttgat tgggtgtagt gncgcattct gaacttccaa attgtggcng 420
ngnatcgcta ctcacgaagn atttcggtaa attcctgggg cattatctaa atcttctatt 480
ggtttagcat ggtacagttt 500
```

<210> 1123

<211> 415

<212> DNA

<213> Ctenocephalides felis

<400> 1123

```
tttttcnttt cttcaanaaa natnttttaa anaatatggg ggttttgttt tatggggggc 60
cttacatatt aacttttgat agcaatataa agtantcnna nttatttcgn ggatcctacc 120
caattccttt attaaactgg natacttctt atactatccc attattttta ttaaataatac 180
acacaacttt aaaaactncc ttntggtttt atacaaactt taaatatcac tcctttttta 240
ccattaggat cgtaattaat ttntacctaa attatntgac ctggtaaagt ttacataca 300
tttaccttn nggcatataa attttttttag tttaaataaa tgctccagaa atatttttta 360
ttctntnta catatcaact taattcctag tttttcaaaa tnaatattac acagt 415
```

<210> 1124

<211> 382

<212> DNA

<213> Ctenocephalides felis

<400> 1124

```
tttttttttt ttttggnnttt ttgganggct gggnaaaacc nttatttatg ggngcataga 60
nagaagggtg tgccaaaatt aaaaaacat tgganattta antttttttc tatattcaca 120
ttttcattat atttctaaac taatatcccc aaatttcaac taagaaatta aatcctttgc 180
cagtctgaga agataggagt aaagttacat ttttcagcc aactccccat tgacaagagt 240
ggcatagcct ccttggccat ttacatattg gccagggcac gaacacagct aattgngcga 300
ttatttctcg atccactgg nggaaatgac acctctctag tagctttccg aaaaagtttc 360
cactcttga ttggcttgac gg 382
```

<210> 1125

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1125

```
ggcgggggct ctggaggacc caaaaccntt ttcctttttt aggggttcat ccttcttggg 60
ggctggtttt ggnccggggga tttttccgcc ttggccggcg ggnttttgcg aattgggaat 120
cgttgggtga agnctggagt accgaaggga acagccccac cacctcgtct ggttgntggg 180
aaatggatct tgatcctgga tctttcgctg aaagaattgg ggtctattat ggncttattc 240
ggtancccat ctacctctac acccaaataa aacaaaatta tttatgggat ttcaaagaat 300
acaacaagtc gccctggctc ccaaatcccc ttaatatata tgcaagcagt gcagtctgtc 360
tattattttt gccactcaca cttaaaaata taatggctgg cccgtatttt atattatatt 420
ggttattcca gaaagcactg ttgtattgaa aaagatctgn aatcaacaca tctcatgtan 480
ggtactttnt ttgaaaaggt 500
```

<210> 1126

<211> 301

<212> DNA

<213> Ctenocephalides felis

<400> 1126

tgtgaaccgg caaacattgt cagtaaagct gcactcatga atttgaggta ttgacccag 60
gatactccgg caggcattgt aatagttata gttttaaatt tggattgtcg agggcaagtt 120
tttcctcaac tatggttttg gcttggcgac gcttgtaaac tttatagaag ttcgtttccc 180
cgacttgcca ctttatcata gagaattcta gcgcagcacc caatacaaag aatattggta 240
aaaaactata gaatccaaat ttacgtcgtc ctggccactt actcaaaaaa gagcgtaatg 300
t 301

<210> 1127

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1127

cgagaaaaaa acttttcttg gccccgattt aaccocctggc gcctcanacc cctggagaan 60
ctggtggnct aantctttta aagaaaaaaa attgncaaaa actgggttga ctggcggtga 120
aactggtaaa aacaacgacn aattaaatat aaaaaattgn gagaagaagc atatcgaaga 180
ggaaaatgaa agggacgatg ccccatgat atctgtgcaa aggacgtgct ggaagaaagt 240
tataagccta atggacctgg atcttctcaa ggatttgact tttcttaaca tagtggtcgg 300
agtcgcatta cctatccgcc agtatcaatt tcagcatggt atttccattt tttttgcaag 360
aatcaactgg actaaaccga gctgatacag cgatgtgcat gtcagtctng ctggggcggg 420
cattggttct cggtaaactct tccacaatta cacaaatctg ggatttcttg cagatggcta 480
cctatcggac tgccgtctaa 500

<210> 1128

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1128

ttctcaataa ttaanacttc atggttttat tttttaatat gatgaagact gcagacgact 60
atcacatttt aattcacaat agtgaaaaaa aaatacgact cacaattata tgtatcttta 120
acactagttg atgtaaaaaa aagatcacat aatttatatt tctggaaatg caacttgcac 180
aacataaggc cacaatttca tatgaaattg aaagtaaaaa atacttaaca gttgaaaaca 240
actaaataat gaacatgaac aataggaact atattcgaca acaaaaaata ttctcaacaa 300
ttatttcaaa tttctaaaca gcaaaattac taggcaaatt acaaaaattg gntccattac 360
atattggatt taagtaatta agactaccgc tgcactctgcc gatggtttct ttcttgcacg 420
ccataagttt tcttgaggca gcattagcat tgntttaagg ncttggtaca ctttgcctaa 480
gggggaaggt cttgggcctt 500

<210> 1129

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1129

```
aantaaancn ccttttgaaa ataantgaaa actctttggc agccccngca aggtccaatt 60
ncggtgggtg cttaagggct tgggaatcaa aaattggncc caaaagantt tacttcttga 120
accccgaaat gggaaaaaga acaccaaaga acctttcacc tttggaaatg ggcaaaagaa 180
agggattatt tgggncccg gtggtanggt ggtccaaccc cttgacatgg ggaaactggg 240
tgaaacgtga aaatggatcat gggatttggc ttgatccata tgcctaaaga accatttggg 300
cattttaaga tatcaaatgc cccacgcttt gttgttactt gggcaaaacc aaatcaaccc 360
aaagggaggg tatttcacgg nccgtgtctt cttgcnactt ggacgtgggt gttttcaccg 420
gctttggaga acttcatcaa ttgaaactta ctacatgagc atgantggga caacaccttg 480
gatnggggtg ggnaaacttt                                     500
```

<210> 1130

<211> 121

<212> DNA

<213> Ctenocephalides felis

<400> 1130

```
aacgcaatct aatgcctaag ttctcaagt ggcgaaaacc acgtacattc ttttttgtaa 60
gancacatgt atgttatatt ataaataaaa gagggaaatc taaccnnnnn aaaatnnnaa 120
a                                                                 121
```

<210> 1131

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1131

```
aattcaccnc tntttaangg gcctaataat tatctccttt tttagagcct ggggataatt 60
tacctcttaa ttttgggggc cctttagctt taattggctc aaagctcctg ccatgtcaga 120
aaatcttcct ggtaaaaaaa atatggaaac tggtaathtt atgtcgattt gnttgggggt 180
tggtatcata tattacacgt naaacagaca aactctgnga tattatgaag gggatatttt 240
ttataatatg cttagataaa totttattac tcccattata aaagtttggt tgttcaacaa 300
aactttcaaa ccagcttgcc gcttttaggt ttacnnttta aaaaaaatat acccnnntta 360
ttaatcactg ggggtattta actttaatgg attattaatc tncatataca tttttagact 420
ttgcttcaact ttagtagggg tttatccctt tccatcnctn tnttgcgggg gntgaacttt 480
tatcatttnt tccttcgggg                                     500
```

<210> 1132

<211> 129

<212> DNA

<213> Ctenocephalides felis

<400> 1132

aatttggttt ttnggagcct ctttttanag cccattttcca gaacattttt tagtaacctg 60
 gtgggaaaac tgatcgacac cacttntgaa tttggtaaaa aacatttgga aatccctctt 120
 acttccggg 129

<210> 1133
 <211> 398
 <212> DNA
 <213> Ctenocephalides felis

<400> 1133
 taatcttaaa ccttaatatt gggtttattac cgaaaatttc tcaaataataa taaccattca 60
 acttattaac cgtcacttat taaacttttg ntcatacaatt ggaatgtcta cagaacacca 120
 gcgtgtttta taatgaatac aaaaacgcgg aacagacaaa aataaatcta aattgcatta 180
 ttatgtttat aatgtatctt agaacatcaa agatataaaa cctttctaaa tattaattg 240
 aaaaaatatg aatagccatg atataaggtt aaatagatgt ccaaaaaaaaa cgtttcattt 300
 aagaaagtca tatgagtaga ttagatttta aatttgtgca cagaatttat gactcatgat 360
 ctttttaatc gctattcata aaataaacgg naaaatgt 398

<210> 1134
 <211> 327
 <212> DNA
 <213> Ctenocephalides felis

<400> 1134
 attgttctct tacaaatcta aaaattagaa ctaatctatg atataaataa aaaataggca 60
 gcatacttat acacaatgta tctaatacaa tatgtattac ttcacgattg ttgtcatata 120
 aacttcaata cccagaattt tttttgcagt tgttcaaaat tacaaattgt ctgcacaatc 180
 catagatcgg agtggtttcg gaatggctct tttccactt agattccttt acgtaaacac 240
 aacacaaagc gtgtggagca aaagttttcg ataatactgc attatattga atatatctgn 300
 taatgttcca aatcatgtag gttgcag 327

<210> 1135
 <211> 357
 <212> DNA
 <213> Ctenocephalides felis

<400> 1135
 cacacagtca gtgatagagt tacgcgttcg ttccgcactt aaccttacga atacttagat 60
 tttctccaag aaaatctttt atctaagaag aaaccaaatt caagttgatg cattattctc 120
 cggaattgtt agagaatctg aacaacgggtt cgttgttctt cagctacgaa tacaaccggc 180
 actgtaaagg gtctttgaag aaactggctc gaaagctgct ccacgttagg acggccggtc 240
 tgaagattgg gaacaagtna agattaccag gaaaggggaa cgatgatgac cangaacaga 300
 attttaccga tnttaccac gnnttnngac atatgttnac atattataca aatatat 357

[illegible]

```
<210> 1137
<211> 378
<212> DNA
<213> Ctenocephalides felis
```

```
<210> 1138
<211> 264
<212> DNA
<213> Ctenocephalides felis
```

426

<213> Ctenocephalides felis

<400> 1139

```
gtttttgtta ttttcggaaa cttggattaa taatgaagaa cgaattaata ttcagaacta 60
ttactgctgt actcaatata aacgatcgga ctcaagagca ggtggtgtag ctgtctaata 120
tctattattc atgttcagat actcttcata atgcgactcc tatgcagttt cttgcgcca 180
cgatattact ggatatttct aatgaaatta cacaagtagg tgatattaca cacacagaat 240
caaacattga ttatagtcgt cctttacatt tctcccaata aaaacatatc aaatattatt 300
aaatttcttc atcagcagtt acttcatttt tcttatgagg gtgcaaaact tttaaacact 360
aatcacaacg agataccatt aattcttgct ggagatttca atgtcaattt tcgttcagaa 420
gaatctcaac cattaattga ttttttaaata aataaattta atttaacaat gaataattct 480
ccatttgaat caaccaca
```

<210> 1140

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1140

```
taccgtcgtt gtttattgaa tttttagtta tttaatcaga agtaatttaa gaaatatata 60
caaaaattga attttatcag aaaacatata ccatttcata acaagtttta tcgcttcga 120
caattttcat ataataatt aataaatatt ttcaaaatga catcagaaat ttttctctta 180
tcacctgtcg atcgcaatta aaaaaacact gtttagccata atattgcaac agaggaattt 240
atccagcaca tgcttattta taaagatcag cttatcaata acatgatata tgaaaatata 300
cttacctaaa tgataatcta ttgttttaata gcattttttat atttcaaaat tcttatttaa 360
tattttcgtt ttcgtatagc agataaaatc ttctggaaat ttgcaaaatg gaatcgatca 420
aaaaatcgtt gntttacagg gaatgcacag caattaatgc cattattaat ggaaatgatc 480
ctatttaagc aggaacac
```

<210> 1141

<211> 289

<212> DNA

<213> Ctenocephalides felis

<400> 1141

```
catancaatt atgaaatgga ttcatgatat atatatatat ttatcttcaa aacatagaca 60
ttcaaaacta tttgttctca ttaataagat tacattcagt caagaaaaac atgccacoga 120
gttttagctt tttcaacaaa atataatttt tttttattgt taaaaaaca ctgccatata 180
aatacaaatt caaacacatt cattacaaca ttatgagaat aagtttagga ttttaaccaga 240
aataaattaa taatggcgaa caaatagtaa taaataactt aaaatcagt 289
```

<210> 1142

<211> 484

<212> DNA

<213> Ctenocephalides felis

<400> 1142

```

tttttttttt tttttttttt cggttttacaa aattttattta ttctgtcagaa aagaaattta 60
taaatttact tttttgataa aatctgngtt tgtaaaaaag ngttagtgtt tattcaatca 120
tacaggnaat taattctggt ttttttcagt aaccttttct taaaactttc taaaactttt 180
caatttttaa cattttcaat attttgntac tcattttatt ttatcatttc attttgatta 240
ttggcatatt tctatatatt attttttcaa caatgttatt aatttaaaaa atccatcatc 300
ttataatttt cctaaacata ttgntngctt aaatcttatac aaaatcatgt ttcttgacag 360
atgtcctgaa gttggaacat acctagttcc gaaacgcgat aataaataaa taaagaaatg 420
ggtnttgatt atttttattac tttttggatt ctttggcgaa gctcaacaat atatatatat 480
atct 484

```

<210> 1143

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1143

```

aaaatattcg aaacatttac agttacttaa gaataaattt acttatgagt aaacatagtt 60
caaaatattt aatgttattt ataattataa aataattgat ttttagccaa tcgtcgaaat 120
aaaaaaagac aaataaataa aaatatnctt tataaaaatac gttttgacac ggattgtgtg 180
tcatctatca gcaatttttg ttaaataagta tctaaaataa taattacaaa gtttaaaaaa 240
taaataataa atttttatatt taaaataagg natacatacc acactagaaa aaaacatttt 300
ttaacttccc gtaaggnagt tatgtnatga accgaaaatc gaaaatgaaa ttttttgcac 360
ttctcgacgt cttgaagggt tctggacatt ttggcatacc tcagaaaaaa tggatgtgtg 420
tgtgtgtgtg tgttttgtat gccgcatttt tagtcaacgt tttcgggctc acagatcaac 480
cgatttgaat gggttaaa 498

```

<210> 1144

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1144

```

ttttnttnnn tttttntttn nttttgnann ntttaaccacg ccatntoggc aagccatggn 60
ntacagcaaa tgagtaaaca cacagncaag gcatggaaac atattatgtn gctgngtgtn 120
gcatctcgaa taaacccaac gattggaccc aaagccaatg tcattattcc ttgcaagaac 180
atgaacagcc cgtatgccga aggaaatctc tcctgtgaaa aatattcggc aaataactaaa 240
ggtaaaggca catgaatcca tgtgcggaag aatcccaaaa aacttgatat tataagcatc 300
attgtaaagt cagtcacgta caagaacact atacgtgcga aaactgagaa taaagctccc 360
gctaaaaata ctgttctact gctgacttta acacaagcag tcattcctgc caaaaacatc 420
cttgatgaca aatctgcagc tgctgcagca gacacacaaa ttgctgtatc agttttgcc 480
gcctaatagca aacagatata 500

```

<210> 1145

[illegible]

gtttaagccn	ttaggtttta	gnccctngtt	agcgcggtcg	cgggcccggg	tacattta	60
gntacacctt	gagggaaatga	cgcttgcaac	agccttagaa	gcacccgga	attttgtaga	120
aggtaaataca	caaatactgaa	catttctttc	atagacgcaa	agctgggtatt	cggtttcaat	180
agccgaactc	tttggtttta	atttttgaat	cttaaagtat	tgcccaggcg	tagcccaccc	240
atcattaata	tctaattcta	atgattttgc	aatacgatgt			280

```
<210> 1146
<211> 287
<212> DNA
<213> Ctenocephalides felis
```

tttcaactggc	ctaccaaatt	tactacgcc	cctagtggcg	gccaatgtgc	cttcatattc	60
ctctttgatg	gtttttgact	caaattottg	caaagcacac	atcaaagntt	ttctttnatc	120
ggatgttagt	ctcaagggga	gctcgattgc	ttgttcctta	cttatttttc	catttgaagg	180
gnatgatgag	ngattaacaa	gactgggagg	tattcgntct	tcacantttg	gtgntataat	240
aqcagcatgt	aaaaatttgg	aacgactgtg	ctgggaaaga	acacaat		287

```
<210> 1147
<211> 484
<212> DNA
<213> Ctenocephalides felis
```

ttgctagttg	accatccatc	agcattattg	agattgtttt	gaaaaaaaaa	aaaaagtcaa	60
tttaggttaa	tttataattt	ttgctcttta	acaaattggt	tatttatatt	gtagtatttg	120
ttttaaatat	aacttggtcc	agattcttct	tttctaaaac	gaattgatat	aattttatag	180
atatattttag	aaatattgnt	tttgggcatg	gagggtaaaa	gtaattgcgt	ttgaatggaä	240
aaaatgggtc	tttgatatata	tggaaacttga	tttttatgtt	ttgtgaccct	aaaaagaaat	300
cttcctgaga	gaatcaattt	cttccttgct	ccacaaatgt	aacacacatc	acacaggggtc	360
tgtacaaaca	tcgggaaata	tatgactata	tatatctcta	tcatttttcat	acttttttata	420
ctaaacattt	atatttggnn	aagaatgnat	gattttattat	tatataaatg	ctaaaatatt	480
tatg						484

```
<210> 1148
<211> 498
<212> DNA
<213> Ctenocephalides felis
```

<400> 1148

atattttgta tagtttcttt tgttgaatac ttcacataa tattaatata atttaggttt 60
cctctcgcaa gttcctgtgt cgcagctttg agtagcttgg ttaaatactg ttccaatcgg 120
acattgatca ggaactggct ctccttttagg acgtaaacac gtgaagaact tccggcatgt 180
tgcgtcggtt ttgaaagcaa attttccacg tgctcggcat tgcccgcacac aggtttcgct 240
ccttggggaa aactcggcgg gttcttcgca ttgcaatacg gttcctcttc cggccataca 300
tacgacgtac aatgatttat caccaatgta cggagcacc ttaggctgtg caggacatgt 360
aactgtatag cattttgtgc ccagagccat aggtccgcaa ttatgacgta acggatcata 420
tgcaaaattt gcggggcaat aatattgggt tcctatacta ttttcgtcac aataataata 480
gctttgacaa tcatttat 498

<210> 1149

<211> 306

<212> DNA

<213> Ctenocephalides felis

<400> 1149

taaaattggt gagcataaaa tacttccaaa gtctactctc caatgtaatc tacaggatca 60
acattcattt ataaagattt aatgtttcga gtgcttcgta taatagaaca cctataaaaa 120
cttttttttg atattcgtgt tgatactata taaattttta aaatcttatt ttattaattc 180
actcatactt ttagcacaga tttaatactg caaaaatttc aatacaaaatt tattatatac 240
agatacaaca atccagcttg tcactactct cactctaaat aactacatga ctatcaacct 300
ctctgt 306

<210> 1150

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1150

ctcaattaaa acaaattttg tgctcataac taaagatttt tctggagttg cggncattta 60
gctcatagaa ataaattatt gacagcaatt ttgttcaatt atatgtcaaa aaaattatgt 120
ttctatctaa tcattattga atgttaatgt aaatggntta attttttaat gcatgaatat 180
ttccaataaa acatattttt gaatgtgaag atagnttatg gcatataaat tggaccatta 240
ttinctatggn caatatttga aaatatataa ataattttta tgcttattat nctgnaaact 300
attaagaacn ttinctgggcc cngaatatnc ttttnaaaaa catttggtta ttcnaaatta 360
ttaagaatna aaacgtgttg ntttcagacn tgaaagggtac natttctaac ntctggnttg 420
gcacngaacn ataatttgnt taaggccac atttaaaatc ntnacaaaac ntctcacncn 480
nantttttta ttattcatca 500

<210> 1151

<211> 349

<212> DNA

<213> Ctenocephalides felis

<400> 1151

attattgact gttttatatt tcgtttgatt ttgtgctgaa atgatgcaaa aagaataatt 180
 ttgagcaaaa cctacctctt ttttaatttg aaactataga gggcnattatt aatgnttcca 240
 attccataga atgtatatatt gtagattagt aaaggtaatt aatgccnaaa aaaaaaaaaa 300
 aaaaaaaaaa aaaa 314

<210> 1155
 <211> 352
 <212> DNA
 <213> Ctenocephalides felis

<400> 1155
 atggctacat taaaaatcaa acgattcaat gttttttatg aattgagaaa acaatttata 60
 taaaaacgat taactttcat tcagaagttt ttgttaatat aacaatagta tctgaaaaat 120
 attaaaaaca tctgtcaaaa atatgcaaag taatttcatt caattataaa aagatttttc 180
 aataatttac aaaaattaaa aacatttttg aaaagatatc aatatcagca catgttaaatt 240
 agtaagagac aagaaacatg acctttaaaa tttaatccgt gttgcatata caacaatgta 300
 ttttaactg tgattttggc aaccatcact tcatttattg catacgtaat gt 352

<210> 1156
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1156
 ctantnagcc ccttactnac ncttggannn ccgcggncgt ccggcggtcc tggncaaatt 60
 ggagttattc gatgtcttat gtagagnatt ttgaagnggg taaataaata atacatcggc 120
 tcgcgagntt gttaaagttt gattaaataa cttagtgtac attttcaagt tattgaatta 180
 caacactttg aaagcattaa gtgcctttgt tagattttta caatatcaac ataataaata 240
 attatattaa aaaatttatt ttaattcact catttttaac aaaataaatt tcatatacaa 300
 tatttaataa atcctgacaa aattgtattt aatttacttg atatttttaa taataaatgt 360
 tttagttaga atattaagga aacgtataca ttaaaataaa atgatatgtt cttcaccttt 420
 atcttttcaa taatacgaaa ttcgaattag tatggcttcc gcttaaatta aatatgtttg 480
 ctaaactgcc aatcaagaaa 500

<210> 1157
 <211> 92
 <212> DNA
 <213> Ctenocephalides felis

<400> 1157
 caaacgaatt acaacaagtg gaaaccactg taataacaaa cgaaaagtgc tacgaattgn 60
 ctcaattcgn tgaaccaact tcgcaaatat gt 92

<210> 1158

<211> 495
 <212> DNA
 <213> Ctenocephalides felis

<400> 1158
 tttttttttt tttttnttt ttcaagggaa aagactttat naaaatangg ngattttata 60
 ntngtatnc aacnctgatt acnantgttc cattactttt ataaaatntn agaaacaatt 120
 nacgctngna tnaacaattt aacttcaact ttgggagcag tttcaanagc agccaacaaa 180
 tngtctacat tacagcaata tgngtatcct ctagttaaat tagcaaaata ggaatcttca 240
 aatccagctt ntttgcagan gtccttgcag agtanatctt tatgaggaac tttntntgca 300
 taaggattat tgagggtaan aaaagcaang ccttctccag tttttggcga tngtactatt 360
 ttccaattcc atttgggtat ccaaagtgtt ccgtnnttgg caataaacat ttttacttcg 420
 ttgttattgc atcaggcaga gttaggatat natggacacc tgaatagacg gncaaactct 480
 cagctntgga agaan 495

<210> 1159
 <211> 148
 <212> DNA
 <213> Ctenocephalides felis

<400> 1159
 atgaaattat gtgttttgaa atttttccga ttttgtaaata aagacatgct tttgttttga 60
 tatttttaaat gtgttcattg ggattactgg ctttttttac aaactcatat gcttgatagc 120
 catatacata cacataattt gcacatgt 148

<210> 1160
 <211> 339
 <212> DNA
 <213> Ctenocephalides felis

<400> 1160
 cattctagag tatttgggga aagaagattg ttcgataaat caacaatttt agacaaaacga 60
 gaaattaagt aatattataa aaatagatat caatctttca tcttactaat ttgatattga 120
 taaaaaacga agcaatacat aggggtgtgtg gttgaggcgt ttcttttttt gttttatagt 180
 agatgaattc taaaacatcc agaaaaataa tatatataaa tcagttaaaa aaatgttttt 240
 tttgcctat tcagtatcac aatatcccaa caatgcaata tatggttggc acccattcaa 300
 aactaaagta tgacaagacg catagccaat tgaaaatgt 339

<210> 1161
 <211> 212
 <212> DNA
 <213> Ctenocephalides felis

<400> 1161
 aagctcttta caccatcatc aacttttgtt ttgcagatgt aatagaaatg atcatctcct 60

ggccatgggc cgttttctcc agctctttgg cagtctactg cgagattctt gcaaattctcg 120
 gaatccaagc ttgaagtgca cgtaccagtt acgacatcga atgcattttt accaacgcat 180
 tcttttaata ttccatcagc tcctttttca gt 212

<210> 1162

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1162

ttaaaacaaa gaaaattagt tcaaataattt ttcaattctt agtttgtgtg tgcataatatt 60
 gattattttag aaatctttat aaacaatagg acacttacat ttcaaaaata ggtgttaccg 120
 aataaattat gatctctttc actacatata ttacaatcaa cttttattaa ataagtgntg 180
 aatttattta ttgngcaaata aataatatgc tntncatggt tagnaataat ttattaattt 240
 aattgnataa tttgntgggt taccncacat tttagctact ggtgagctag gcataatgng 300
 aaanggatat cttaattttt ttngngatcaa agctttcatt ttattaaaaa aggaanttat 360
 taataaatat gngccanttt tcantattgg gatgctantt atgccnatga tatgggtgna 420
 tcatnatatt tgaataatcg attttttgat cctnttgngc gatatttacc aacnntaatg 480
 ttttaagctn taaagaat 498

<210> 1163

<211> 360

<212> DNA

<213> Ctenocephalides felis

<400> 1163

tccnaagccc ttgtnggctn catttngntt aacgggggcn ncggcggggg actaaaattg 60
 ntgagcataa aatacttcca aaggctactc tncnatggaa tctacaggat caacattcat 120
 ttataaagat ttaatgggtc gagggnttng tatnatanaa cncctatnaa aacttttttt 180
 tgntantcgg ggtgntacta tataaanttt taaaaactta ttttattaat tcaactcatac 240
 ttttagcacc anaatttaat actgcgaaaa tttcaataca natttatttt atacagatac 300
 ancaatccag cttgnggcta ctctcactct naataactac atgantatta ancncctctgt 360

<210> 1164

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1164

cgagtatgaa tatgattcaa agggaatcaa aaataacaaa gataaagttt cattaaaaga 60
 agctattttta ctcatggaga aaatgcaaaa taaaatggat gattccagca ctgtgctcag 120
 cgatctggac gatgatcttt tggaagctga aattttgcag tctgcaaagc caggaagtca 180
 tgaaagcatt ttcaaaggtc gctatcacta cgtgtggcct atgttgcttc tccttttaat 240
 tgttcttacc gttttgtttg tcgttggaata aatagttcac atttgacccg ataaccgaca 300
 acgttcactc aaatatcaga atataataac tgctgtgaat cacaagattg taaagaagaa 360

ggattgtgga ttagtatatc aacctctatc agaagaaatc agatgtcccc aacgccata 420
 gtgacacgct atcaagctat ttgagcagcc gtttcatcat gaaaaaatac ccccgacaag 480
 tgtactttaa acgttaattc 500

<210> 1165

<211> 495

<212> DNA

<213> Ctenocephalides felis

<400> 1165

tttttttttn ctnttttttn gatgaattaa cattagtcaa tttttttatt nnaaaaaata 60
 taatatgaga tttccgatta caaattatct ttgttttttc tttgatgttg atggtttatt 120
 ggcttttaaat ttagatatta ttgnagttat caaaacaaga ctgaatccta tagttgtaaa 180
 tgcgataaca ccaaataatta cnatagatca acgatggngt attcatttat gagtgnngta 240
 aatttatcaa cagcatcacg aatcatttcc actaccagc aaactagatc atcaaatggt 300
 gcttttggtg gtggcacagg ttcagcttta gtatttttgt caagccnnt tttttttttt 360
 tttttttttt ttgcttgngg ggttattaga ntatggattt gtcatttata aaacnaatag 420
 ttaanaaaaa ttttttaagg tcaatttcca cgangcaatt ttncacaaca tcattaattt 480
 ttccaatctg gattc 495

<210> 1166

<211> 419

<212> DNA

<213> Ctenocephalides felis

<400> 1166

cagcaccatt agcacaaaca gacaaccggc atgagttatc caatcgcttg cgattctatg 60
 ctctggtaaa aaatataagt cgagaagttg ccatatgctt ctccaaacat tgacagttcc 120
 aatgaaacta aaaaatagaa ataagtcagc aactaaaact ctccaaaatc cttccaaacg 180
 agcacatgtn catcgcatga taggctgaag actgaatgtg agtattacaa tcccgtagcc 240
 aagtgaagt gaagccagag cactaagcga tggatcatct ggaaatataa tattgtccaa 300
 tatcacccaa gctccccctn acacgacaac caccaaggat ccaacgatga atacggaaaa 360
 taagcaatcg attaccgtaa agccatttct tntgatgctc gattctttaa aatatgtag 419

<210> 1167

<211> 293

<212> DNA

<213> Ctenocephalides felis

<400> 1167

tagcccttca atcattatct ttatttaata attgggcaga tttgntagaa caaaaataat 60
 gattgttagg gctataaaat ctgcacaatt attaaataaa aaaatattgg gaaaattttc 120
 tatatcatgg gcaatttatt acagaagagc gaagttaagc atgagggnnt tatcaattat 180
 tggcttataa attataatag aaatgaaaaa aattgttaga tataaagaaa tgtttactgt 240
 aagattttag caagtgttga gttgaaaatg aagaatatgc ttacaaaatt ggt 293

<210> 1168
 <211> 109
 <212> DNA
 <213> Ctenocephalides felis

<400> 1168
 caatcaagac ctttggaag atttttgggg cannttaggt tggcccaaat ccaagaggaa 60
 attcaacggt ggccaagcgc ctttncctac atcagcgggc aaatctggt 109

<210> 1169
 <211> 438
 <212> DNA
 <213> Ctenocephalides felis

<400> 1169
 tgagaataaa gctcccgcta aaaataactgt tctactgctg actttaacac aagcagtcac 60
 tcttgccaaa aacatccttg atgacaaatc tgcagcagct gcggcagata cacaaattgc 120
 tgtatcagtc tttgaccagc ctaatgcaaa cagatacatt gtttgaatag cagaaaaatg 180
 ctatgtcgga gtatagtgc aatgtcactc caataacatc atttacataa atccagtcct 240
 ttaacaaagt caaatccaaa aagtcaacga taacttgcaa ttttccctg gatttcttct 300
 ctaccggtgc agtagtgcta tcaactgaca tgactgctcc agtccaatta cctaaactag 360
 aaatggaaga tccacgtctt ctcatcttat gttcttcata ttgaagcatc ttaactggag 420
 ttacgccttc tatatncc 438

<210> 1170
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1170
 ttttttataa atngttttaa aattacatat tattgaacaa aaaataaact gtagtaaatt 60
 aaaaacaaga tccaaatttc caaagcaatt tgttaatcaa taactgagaa acgactcgtc 120
 gattattgac aaaattttaat cagcacgatt ttcaaataga aaactttttt aatgggtttt 180
 gaattttcaa aatcgattca caaatgtaag ctataacgtg aacaaaaaat ttgagatttt 240
 tttgaaaatt cttaaagaaac ggctcggccg atcatgaggc aaaactaacc agcacgagtg 300
 cttatcgaat ttgcgaattt caacgacttt tcagatagga ttttgcatta ttaagaaaac 360
 gtcgactaaa gatgaaattt agactcacgt aaaaaagtgc tgctcatttt tttggaaatt 420
 tttatatttt tctgttgatt agaaacagct tggccgctgc gcacaaaact aaaagacgct 480
 agtaattatc tagtacatca 500

<210> 1171
 <211> 220
 <212> DNA

<213> Ctenocephalides felis

<400> 1171

```
tctcaaggtc tggtagagacg ttccacaaaa attctagaaa tcagaacaat gcttcacaaa 60
tacaaataca cgtcctacaa tatcaccatt caacacctcc aacaatttta ctatatcatt 120
tactcctcaa aattcgtcct agtaggctta taaacaccga catccttgtc ctccgaatgg 180
tagcccaagg aggccaattc gtccataacc tcaacattgt 220
```

<210> 1172

<211> 284

<212> DNA

<213> Ctenocephalides felis

<400> 1172

```
aataatttta actatgtctt attatatccc tttgtgcata taggggntaa actgactaac 60
aagtatcact tttttttata aatatccaag tatcatacga cacacgttta taacgatttc 120
ataaattaaa tatcactggt tgtttttgta caaaggcact ttttgtcttc aagcacacac 180
cgaggcttta aactaccaat gtaatatattg actagaataa ttttaattgt ttcagcgctcc 240
actgaaggct ttaagcaact tcgtgccaaa cagactctct gtcg 284
```

<210> 1173

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1173

```
ctaagatgta tatattctac acatatgtgc atataatatt gtcaagtaat gtcattgtgat 60
atatctccaa aaggcgtaaa cgctggaaga aaactgagta aactagaaaa ccattgatgt 120
gtggaagatc tagtccaaga agctttttta tggataaaaa tggaaacaaa aatgtaaaaa 180
tatagttgca attataataa tcatatcatt agatatgtag cgaatatgag atagattctt 240
tttaaaactt ttataaattt atttatatat aaaaattctc aatataaata gtatactcaa 300
atatatttat atgatttaat aatattgaag tttttataac caatattttt cagtaaaatt 360
ttcagtaaat gatgattttt tttataaaag tgcgtattaa ttaaaataat ataaaaaaaa 420
aagattttta ataataata tactattaaa tatatgatca tttttatgaa gtattaattt 480
tcttataaat tattagataa 500
```

<210> 1174

<211> 353

<212> DNA

<213> Ctenocephalides felis

<400> 1174

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cttcattttt tcaatatgca ntctgatttt aatctaaggg aaaaaatntn cnggtgtngg 60
ttaanattta atnngaata aaattctgtg tattatatatt agtttttttt aaattatcat 120
ttaatnttaa ttattgntaa aaatatnatn cgattaatta aaataatatt aaacataaat 180
```

ttcattgntt tttttangaa actaaattgg gaaccttttt atatcttatt atcnacgcta 240
 aaaaaaatac atttttttta gtattttacc gtttcatatt atattaanaa aaacttttag 300
 ttaatactaa ttattataaa aataactaaa agttnnacia aaatactgga agt 353

<210> 1175

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1175

tttgnanna aagatacagg ctgtttgttt atattgcata ggtatacaag tgaagcaata 60
 ttttgaacat tgaaaaaatc acaaattggg tatataatth acagnaaaaa tacaatatag 120
 ttcagaattc ataaattaat atttnttaca agaaacaatt actttaggng ctttaataata 180
 agtttcttaa tgaggcatga agatataaaa ttaaataaaa atgatcatag ngnaaaatac 240
 aaattaaata gttcacacaa ataaatagtt agcaaagtca tctacgctat atataccctt 300
 aatactcgta tattcttcta gtagtaatth tttcactaat ttcacagnct tcaagattat 360
 tccaaaagat ttacgacgaa ccatctgatg tgagcgaatt tgatgtagag ctcagtcgat 420
 ctccgtatth attaagaagg ctaatatgac accattcgtn cagccaaaac caagctggcc 480
 tcatattntc cgcatttctg 500

<210> 1176

<211> 299

<212> DNA

<213> Ctenocephalides felis

<400> 1176

ttggcaatga aatacagttg ggaaaggact aaatcggtt cggtgctaag gcttaagctc 60
 tanaaattct ttcccattht gggatttht cccggggacaa aggcagaaaa acttggtaaa 120
 ttcaccgggg aattthtaat ggtagaagca aaacatccaa ctcttggaac ccggagatac 180
 caccacctcc agaaaatacg tctgcaggta acgtcattgt tccacaaacg gaaactgatt 240
 taaatattca aaaatcataa aagcgggtcat agntthatta atgagttgga aataattgt 299

<210> 1177

<211> 230

<212> DNA

<213> Ctenocephalides felis

<400> 1177

aggtgagcgt ttggtgaatc ctgaagcatn ctgttcatag caacagctga ttgggatatc 60
 agcctgcgct gtccggactg gacctgggtg ctcttgacga gcaatcctac acatctcatn 120
 gccataacga aatacgaaaa ttattagtga accttcgaaa aatcaggaac cccgttgtaa 180
 atgatagatg gacacacaca acgcgcgtth gaaatgaccg aactgtngt 230

<210> 1178

<211> 318
 <212> DNA
 <213> Ctenocephalides felis

<400> 1178
 ggcaacanct ttgccttggg caccggctgc tgctttggca gcataactcc tgctgttcga 60
 taaaatcgat gcgattttac cggattctgt tttgctcagg gttcgcaaag tggaattgat 120
 tacggagtgc atcttgtaat aaaatgtata gccagttgag ttgaattaaa ttgatctcac 180
 ctgtaagcta ctgaacgaag aatattaaat cctttatgag cactgatagt attttttggg 240
 gtgtgcttac gtaacttctg cacttttcag tttcattgct tgnaacattt tcttgaggag 300
 cgggtaattc ggcattggt 318

<210> 1179
 <211> 329
 <212> DNA
 <213> Ctenocephalides felis

<400> 1179
 tgtagccacc gcgatacgaa tcggaacgcc catgcttata atccatgttt ctggatagct 60
 gactcacaaa ctaacttcaa tggaaccca actcacacgt caaggatttt gattaaatac 120
 acgtgcaaat ttgaataatc aaaattaaac ttgtcttata ataaatgttc cacacatttg 180
 ncctnctgca tntgnaggta tgatgatatt gaactggcac gactgcactt aaaatagttg 240
 cattataata ttaattcgtt gcacttgaaa atttaatgct gaaatgncga aatagtccac 300
 acagcctaca agcacgtaac acacgtnaa 329

<210> 1180
 <211> 190
 <212> DNA
 <213> Ctenocephalides felis

<400> 1180
 ttatattana gggncgtggt gaggttaactg ncggaaaaga aaatttantic tttgagagtg 60
 gtccatttac ttattttggt cttcaagcga ttacacaaaa cattggagtt gccgattctg 120
 ngaaaggatc tatgcaatcg ttaaataatag atggtatatt aaaaaacagt tttataccag 180
 actatacagt 190

<210> 1181
 <211> 305
 <212> DNA
 <213> Ctenocephalides felis

<400> 1181
 cgttacttcc aaccattttt gcaataattt taactatgtc ttattatata cctttgtgca 60
 tatagggttt aaactgacta acaagtatca ctttttttta taaatatcca agtatcatac 120
 gacacacgtt tataacgatt tcataaatta aatatcactg nttgtttttg taaaaaggca 180

ctttttgtct tcaagcacac acgaggcttt aaactaccaa tgtaatattt gactagaata 240
 attttaattg ttccagcgtc cactgaaggc ttttaagcaac ttcgtgccaa acagactctt 300
 tgtcg 305

<210> 1182
 <211> 58
 <212> DNA
 <213> Ctenocephalides felis

<400> 1182
 tacgatttag ccgaggcaaa taaaaattct attgnaaacc canagtggaa gcaaatgt 58

<210> 1183
 <211> 383
 <212> DNA
 <213> Ctenocephalides felis

<400> 1183
 agngggctaa tataggatct ttataattac cgnagggcca aattagnnga caaaatnnaa 60
 ctgagatttg taataaagat tgcaaacatt ttcaaaaaaa aaaaaaaat tgaaaatttt 120
 acgatttttt tccgaggagg gtaattttca atatacgggt tcacagaggg gaaaggggat 180
 ttcaaaaatt ttcaaaaaaa tggattacgt gattaagtga cgtcccgagc acaaaactta 240
 tgggtccaaa tatattttaaa atnttaaaag tccaaatgtc caaaatctgt attacaaatc 300
 tgtcagtctt tttgcaatcc tttatcaaatt attattttcc atcaaagcac acactttttt 360
 atacatgcat tttccaaata cgt 383

<210> 1184
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1184
 tttttttttt tttttttttt tcacataata tacattttatt ttcaatttaa ttaacnggga 60
 aatgctattn cataaatata acgtattnta acatacaaaa atcaaaacat atttatncta 120
 ctaagtttat nctgttngca acagttgtct taccttaaag taaaaactgg gggccctgcc 180
 ctatatacac tgngtctatt tactgattac aatcacatct gacaatcca atcacaattn 240
 antntaatcn ccantcatt tattttaattt ataatacaata tgccctggatt tgaattttaa 300
 ttcaatngga aaaccaatca gatnggtngc acacataaat atactatttt gtattttatc 360
 gacatgaaga gataagttat atttttagat caccactgac ttttttactt ttgattaagt 420
 ctcaaattta tattatatat ttaaattattg gtttataata ctgaatattt gatgtgngaa 480
 tattattaag ccaaaagatt 500

<210> 1185
 <211> 327

0991936-11101

<212> DNA

<213> Ctenocephalides felis

<400> 1185

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cttctactct atcgctctctg aagaaagacc aatctttaat aggctcgatg aagatttttt 60
tcttggcatc aagaggtgaa ttatcttgtc ggaattcttg agaccatggt cggtagagctc 120
cgaagtagaa cttccttttt ttgatttctt tcctcgaata attcggtttg ttaggagttt 180
tccaatatac ttgttccatg cttcgcttaa tgtagttttc tggcaaattg gaatattggt 240
ttgttaaadc gccaaccttt tggcataatt gcaaagatct cctcatgttt gaaattattt 300
acacaaaatc aatgacagaa taatagt 327
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<210> 1186

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1186

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atataagtaa acacaaaaat aatccattgg ggttccaata gattatattc ataattaata 60
ttacttacac gtagttatat ttttattggt aggaagtagt gatcattaaa gttcaatttg 120
aaaaaatatc aatttttttt tatcaaatgc tngtatgga attatatata caatttcatt 180
tataaatttg ccaaatacta atttataggt gattatattt tctattctgc ccatcacaaa 240
taaatgaatt cttttttata ttccctccat ttgcttttag attcagtagt aatcactact 300
tctatcaata atcaatgcat atccctaatt aagagagnag attcaaatat cattttatta 360
attctaaaga ggattcttat gttgatcgat attttaacat gntgaaagga aaactgaacg 420
acttgctcct ttatattctc attttaatag cagantgntt tttgaattag gtataatatc 480
tatatttatg cnaaataa 498
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<210> 1187

<211> 496

<212> DNA

<213> Ctenocephalides felis

<400> 1187

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aagcngaaaa aatatgaaaa atatgtaaac tгнаатааа ataaatatta taattattgg 60
gcaattaata ttaattataa aactattatt atatttctag aagcaaaatt tttttttcct 120
taaagatggt tttttgtagc atgtgtattt cattcaattt acaattatta tgaaggagaa 180
aaactgtcga atatggagtc acgttttact ttaaaatttc aataaagtat ttttaataat 240
aacatgttta atgaatttaa tattttttcca ttattatac acagagagaa tgctttatat 300
tcaaagattt atgtttttaa atcatttttc ataaagggtt tcatatacga cttttatatt 360
ctaaatcatt aatttttggg atttttataa taattaataa aacaaattta ttcagtacc 420
nacntcagta tttaaaaatt attaacaagg atatgcttat attaatacaa tngnagtggg 480
naattatttg cncaaa 496
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<210> 1188

<211> 448

<212> DNA
<213> Ctenocephalides felis

<400> 1188
ccgggcgggg gaccagaagt ttacttacat aacttgngng ggnaacttat tccaaaaaga 60
tgngnttacg ggngnatata gnagaataag atttaatatg tnatattaca tggnaacttaa 120
tttttaattg natatcaatc ttaggtataa gcaagactac gagggccgta ttttaatgna 180
tattaaaaat gatgngnata atcattatct ctatttaatt caaaagagta tatatttgna 240
atatctatat ttaaacaaat attattaaaa taatcatata taaattatac agcattctat 300
tttattcaat ggcatgagca ttcaggacgt aaagngatta acaggggttcg atcaaaatag 360
aattctatag ttttggtcta aaagaaacga aattttaaaa aaattatggt attcngnggg 420
tttattacag ctattaaatt ttttacct 448

<210> 1189
<211> 117
<212> DNA
<213> Ctenocephalides felis

<400> 1189
cgnacgccct cttaancncc ttaaaangcc ctcgagcggg ccgnccgggc acggactttn 60
aaantacaaa ttnacggnat tggtataaac taacagaatt gacagtttta taattgt 117

<210> 1190
<211> 213
<212> DNA
<213> Ctenocephalides felis

<400> 1190
caacaacaat ttcnaaaca aatggctgga nggataaaac ggntaaaaaa nggtattcaa 60
tnggattggn ttttggtacc ggtaatnccc taaaggagg caggggcggt actttttctt 120
tntgggcggt ggggtggactt nggccaatg gtcaatttcg gttatttncc aaacttcaag 180
gcttttgaaa ctttggcatt caaaggacaa agt 213

<210> 1191
<211> 207
<212> DNA
<213> Ctenocephalides felis

<400> 1191
cgctatcaca gcaaaagaac cagccatgat tgccgaagtg tcggtgactc tcatgtgatt 60
catataatca gctttgtgtt gcttgtgatg atgggtgctt ttgaattgtt cttcatgttc 120
attagattca cgatcctggt gaattggtt aaccaactcg gtcctaaaaat caggcgacga 180
agaagagctt tcctgaatcc tctccgt 207

<210> 1192
 <211> 330
 <212> DNA
 <213> Ctenocephalides felis

<400> 1192
 agggantagt aaagggaaat tagngcccat tgataccaaa acaaaagaat tnggtctggc 60
 tttaatttca acaaaaaaat gggtgggggt antggaggga atgaaaaaaa ttcactggaa 120
 tttaatggcg gtctanttcc ctcacccatt tcaacaaggg gatcaacgaa aggggtgggc 180
 aatngttttc aagcgcgatn ccaagttinat tttagtagga atcaagcccc tcaagcggat 240
 nccctacctt cttaattttg cttgcaaggg tattgaaacc gggttttaag cttggcccat 300
 tgnaccgggt ctttggtctaa ccaaaaaagt 330

<210> 1193
 <211> 149
 <212> DNA
 <213> Ctenocephalides felis

<400> 1193
 ataaaacaaa caccocgatt ataaaatatn aaaatatgta ccatatcatt aggttaagna 60
 tgtaaatagc gctcgaaaat tatttattaa taaaacattc ttaaaaaaat tgattgcaat 120
 tatgaattca ttaacgatat ttgttatgt 149

<210> 1194
 <211> 342
 <212> DNA
 <213> Ctenocephalides felis

<400> 1194
 aaaatggcat tatatgcnnn ttataggctg agcctttata aatctgtgna tgaaccanac 60
 cactctatct tctaacctaa agtgtaattt tgttttacag aattttctta ataggtaata 120
 tttttaattg cagngtatca tattatagtt tgtaggtggt atattttatt tgtaaattgn 180
 tgttcatatt tctcaaacga ttgtttatgt attacacagt attaaaataa accttggatg 240
 caataattgt tataacaaca ttgttgtagg taataaaaatt ttatcaatgg attattaaaa 300
 aaaaaaaaaa aaaaanannaa anaaaaaaaa aaaaaaaaaa aa 342

<210> 1195
 <211> 131
 <212> DNA
 <213> Ctenocephalides felis

<400> 1195
 atgatggcat tcatgacgac ttctgtcgtn naacaggcat tttttgttca caaatcctgn 60
 ncagtaaatac ataaatataa cgaaactatt tgtagaaacc tttctcagta taaagacatc 120
 aacaccaaag t 131

09991036-112101

<210> 1196
 <211> 463
 <212> DNA
 <213> Ctenocephalides felis

<400> 1196
 gtgcagtttt taattgngaa tttaatatat gttgatttaa tttttgngna aactgangag 60
 cgtttattta aaatcaatat taaactaaca ttgctaaggt gatcttaa at ggtgaaatgt 120
 tcattatcat attaaatttc aattcaacgt atctacttca tcaaaataaa taattttatt 180
 ggtgacttca aattatcaat atacctcctt caaattataa atatacctca attttttttc 240
 acatgccgtg cagtgccgtt tgaaaattgt aagttacatg cttttgttga ttgttaattg 300
 aatcttttga tgtcttgga aactttttatt gntacacata aaggatgaat tataaatcaa 360
 tggaagcatg taatgattgc attacacata ttcgcctcat atatattaag tatatttttg 420
 tggttaattct tgcacttatt ggttaatat ttattcaaat atg 463

<210> 1197
 <211> 252
 <212> DNA
 <213> Ctenocephalides felis

<400> 1197
 ngntcttcaa cnttgctctc caangccctn naggcgnncgn ncggggacgt ttttttttaa 60
 ctgntaaaat atttattata aaaatacaaa acaaatttca taaaatatnc attacaattt 120
 gngacaaaa aaattaataa ttccctgttg catcaatatt gccttacaaa aaattttcac 180
 gaatgaaaat ttatattata ttctatttaa acacttatta actattattt ttagttcaag 240
 ctaatgtaac gg 252

<210> 1198
 <211> 444
 <212> DNA
 <213> Ctenocephalides felis

<400> 1198
 aacaaaaaat aaaaaataac ccattttact ggattcattt gaataataaa tatgttngtc 60
 tgnatgggtt ttttcttaaa aaaaataacc aatatctaca attgtctttg acacaatata 120
 ttaataacag aactaacad agtatttgaa ataacatagt attaatattt gtattaaggc 180
 actcaatact ataggaatac ttggaacgcg cattgctaaa ttcctcgctt atccaaaata 240
 cgtataaata cttattatca attatagggg catattgcta aatgacttaa aatcaataaa 300
 aagcgaatct cgcgtataaa aaaatgccat catcatatct cactgtgtgn aaaaatatta 360
 aaaatttgat cacgatgatt ttgctgatca caacttatgc tagactcaca atatgtgaat 420
 taaacatgag ctctcttata tttg 444

<210> 1199

<211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 1199
 attattcata agacatcaaa gactttatta cataagggac aacatagtaa ttaaagttac 60
 agaaacaatg cagagtcaat acttcgattg cttataggaa ttcattggagg tcgaagaaat 120
 ttctagtata tttttgattt caaattttaa tactcagtta atgggtatgaa tgctaagtct 180
 ctctctactt tattcatata tgacaatatt gcacatttgt gcacgaaacc ttgagttgaa 240
 tttttcagag atagttatgc atgaaatggt gaataccagt atttgctcca acggccttcc 300
 tgcattgcgtc tatatggaag ctatgaactc attttaaagt tgaagatttt atggaattaa 360
 ttataagagc ataattgactc tgagtttgag gaacttgctt atgtttaact aaatcatttg 420
 caacaacatt taaagtcgga actgttcaca actggaaaca ggatatctgc atttataata 480
 ctttaataat aattgcat 498

<210> 1200
 <211> 226
 <212> DNA
 <213> Ctenocephalides felis

<400> 1200
 ttaaataattt atattgatatt tctctacgat gtttaataaaa aaaaaaattg attgttttga 60
 acttgaaatg tagatttgga atatctgcac gactgttatt aatttaaaaa gttcaaagat 120
 tgtttattca ataaggaaca tattaatat catattgtta aatttttata tattgatcta 180
 ttgtaattcta tctctgtgat taacatttac caattaaaat tggagt 226

<210> 1201
 <211> 228
 <212> DNA
 <213> Ctenocephalides felis

<400> 1201
 agtatataga tagatagaaa ataaatatag atattaaact gtgtttaatt aaatattnac 60
 aacatataat ttataaatat atgcttagaa aaatacttgt agcagcatta aaattaacat 120
 atcaagcatt tgttttcata aaaattaaaa actgcttcatt ttatatgatg aaactatgat 180
 cgtaaggcctt gcaggcgact ctgcatttct tctaaatctt cttctggt 228

<210> 1202
 <211> 70
 <212> DNA
 <213> Ctenocephalides felis

<400> 1202
 acttagcggg cgccgtgcaa gtgattcgac caaagacgga caccgaagta gacgtggaac 60
 tataactggt 70

<210> 1203
 <211> 114
 <212> DNA
 <213> Ctenocephalides felis

<400> 1203
 ggcgcaaccc ttttggcgac tgcctcacct gccttcttag tgagtttctt aagattatTT 60
 ctctttttga tgtaagaat agtcttaact ctctcttTgt tttcaagagt acgt 114

<210> 1204
 <211> 337
 <212> DNA
 <213> Ctenocephalides felis

<400> 1204
 gaatactggT tcataaaaatt tagaagccct nntttttcgc ctacggcggt atggngttcc 60
 gattngtgTc cgggcttgTc caaaaatgta aaatccacac gcgcattctc caaaggcgTc 120
 aattcatgta aaacattcgT taaccttaac anttgTgtta ctaaattctc ctgcacgggt 180
 tgaaaacaat ccttaagcat tttaaatcat cccttacant tttaccctgg ntgattaatt 240
 tagtaaattc cgTcaccgga tttgtcgagt gtttaacttt atcggcgatg ctgggttctgc 300
 acgcgttcaa ttttcggcgT gttttgtcaa atcttgg 337

<210> 1205
 <211> 445
 <212> DNA
 <213> Ctenocephalides felis

<400> 1205
 aaatatggcc caaacaaaat attgcttttt ctctaattgn gctttttaat gaagaatcat 60
 acataagtat gaataatttc ctaactaata ttgctttatc attgatttct ttgaaatcag 120
 tgtcttttaa gnttcctatt tcacttccat ttggcatagg aagttcactg caacgagaaa 180
 tcaaaattat acctacacaa gctgcttcaa taatcattgg tttagaggac ataacatgTt 240
 gtaacaatgc atttactgca attgtataag tattgctttc aatcagntta ctagaatccc 300
 tttttgaaat ttgtattcta cgTtcacatg cattgctaaa tgctaatatc agcccatgTt 360
 tgttttcatc agatatgtta gctgattttg attgcgttat catagactga atttcttttt 420
 caaattcaaa tgctttcata gtggt 445

<210> 1206
 <211> 383
 <212> DNA
 <213> Ctenocephalides felis

<400> 1206

catataactg tatgaacagt actatataaa tgatgcgtgt attataattt cgagttaaaa 60
cattttatTT gtgattatac ttgtgattta atatacaata tctattttta gttatgacat 120
gttaccgact caaaaaagtt gatataattga atttttatat aatttaaact atttgtgaag 180
agatttaata cttctatttta tgtataattg taaataataa atacagtatt aatttgttgt 240
ataatagaag atattataag tatatttaga agcattgatt attaattctc ttaagcggtc 300
ttatctttta aactgttatc acatttctaa atgtttaata aataaaccag ttgaaaaaaa 360
aaaaanaaaa naaaaaaaaa aaa 383

<210> 1207

<211> 350

<212> DNA

<213> Ctenocephalides felis

<400> 1207

caacgacgac gacggagatg ccaaccacgg aaataactga ctacaaccac agaagaacca 60
accaccacca cgaagtcaac aacgacaacg agcaatacac caactccagg atttccaaat 120
tggtgtctat aattggcaag tgataagata atatccacta ttcaaataac tattaatgtt 180
aaaaaaaaat tcagtattat aaagaacaca aacaatatta ataataagtt attctttata 240
ttcagtaaca gtattaattc tgnttgttta tgtcgttgta aaaattatac aaataaatta 300
atttggaat atgaacaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 350

<210> 1208

<211> 147

<212> DNA

<213> Ctenocephalides felis

<400> 1208

attaactact tttgatgcat aaaaagctgc agaagagtgc actaatcgat tatgttgagg 60
ccacttcatt aacacctttg ttctaggtat gttatatacc tctggtttgg ctagtcttag 120
aacgcattgt ttgtgtgagg ctttagt 147

<210> 1209

<211> 304

<212> DNA

<213> Ctenocephalides felis

<400> 1209

caacttttaa tgatattcaa cttcaaactc acgtggctaa tattttccaa gttgatagaa 60
gtaaaaattaa aataactcat acacctgaaa cttcagtaac tattctctct tgatttcagt 120
attaaaaatat aataacaaaa agtgataatg taattttgtt catgagtttt tgctgaaatg 180
atctgaatat ttacctgttt tcgaattacc aaacattgaa aagttaaaaa taaaaaatat 240
ttattacttt aatttatTTT agcatatgaa caattcatat tgtttaactta taataaataa 300
tagt 304

0991936-1101

<210> 1210
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 1210
 aaaaggagaa gtttctaaag acnatttttn ttntacatgt acctagttag tgtgnggggg 60
 ggaaattgct attgcatatt acatacaagc ttaataaagg ttatggatgat ttatttcatt 120
 taaaggcaan gtatcggntt aatggcnnta aatntatntt ttatttaata ttaaatagat 180
 taattaaaaa tctataaaagt gataagagggc ctgatatcca taatattatt gaatattaag 240
 aagtgcgga tagatctgat aatgtagtag ttgttataga caatttactt aataattatg 300
 agttgcatca ttatgcaatg atttatcact attatttatt caacatttta tttaactgct 360
 tgcaactttt aataaaaacgc atnttttatt gttttaagta taaatcttat tagggcacia 420
 tatgaaaata aaaataaaga actttataca aaagctnttt tatcaatatg cttcttgccg 480
 tattaagtta agaaattt 498

<210> 1211
 <211> 342
 <212> DNA
 <213> Ctenocephalides felis

<400> 1211
 caatgacaga aaaacctcgt attgntatca ctaaaaattc aattccaaca agtgatctgg 60
 cttataactag ggcgaagaa aaaaaggcga acaatgtaga tattattcgt aagaacagcg 120
 acacttcgaa taaaactgac tcgtaagaat tttgtgaaaa gtgtttgtga aagtattatt 180
 ttgtcaaaag gacgatttag gctatgtagt gactgtatgg ttaagaacta tattagaact 240
 tattgctcat aaatccaaac atacaataat ctttataaaa atcttaataa tttattaaat 300
 atttttacat aaaaaataaa aatagtaaaa acgcaaaaaa aa 342

<210> 1212
 <211> 487
 <212> DNA
 <213> Ctenocephalides felis

<400> 1212
 tgaacttcat tatttaaatt taatcanagn ntatttttta aacaaaacat agtagcggng 60
 taatataaaa aatacattta tataacacat taagttaa aaataaaaga aagcaacta 120
 caaaacaaag tttaaatttt tcaaaatcaa aaaccgtaga ataagtatca attataagaa 180
 tttttttatt gcttttttaa tttttttata taacttacat gtaataatac atttctttat 240
 catagaaact ttttatacat gctattatta tctatatgta aaagattgtg caaaaatatt 300
 tgagtaaatt ttcaaatcaa aataatacga aacttataat caagcgggta atgtaatttt 360
 tttttgtctt tttcgacatt attatcttaa ctgtttttta gacttagttt gtgtttctca 420
 atctccaaaa taatttatca ccatgaaata tctcttatca tatattttta aacttaattc 480
 tataggt 487

<210> 1213
 <211> 236
 <212> DNA
 <213> Ctenocephalides felis

<400> 1213
 atctgagata cagcgattag taattgntng ccagctactt aaagagtatg ctgcatantt 60
 atttatacgc tatataatta tatcttttat attaaatttt gataaagaag tgaatataaa 120
 aaagattaaa tttaattaca agcgtataat tgttatattgt ttgattttaca ccaataaaaag 180
 canatcagta agttgagttt ctttaaaaaa aaaaaaannaa aaaaaaaaaa aaaann 236

<210> 1214
 <211> 379
 <212> DNA
 <213> Ctenocephalides felis

<400> 1214
 gggggttnta agaaacncnn ntttgaccca ccnntttttt anggggcccc ccggccggga 60
 cnagttgtat aaaacataaa ttgtaagtnn tcttacaggc acatgctatt gncttattgn 120
 atntattttgt tctaccagga aagngcttta tagattttac taaatatata ttaagaaaag 180
 cgttctctgt tgaattgtaa ttaatccttt ttgtaagatt tacagcangt atgaagaaat 240
 gttaaatttt gttaaatttc atgtattgna tatgatattc gcacgtactt atgaaatgta 300
 tgtcagtcaa atgctgaatt tattttaata tacaatcttt gnaatacaac nnanaaaaaa 360
 aaaaaaanaaa aaaaaaaaaa 379

<210> 1215
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 1215
 ataaacaagc agaaataaat atagctgcta tacatatttc tgcttgttta tgtaccganc 60
 agagtggtaa cagaagatac tcanatattt taaatgtagg ttttccaagc ccatccaatg 120
 ttcccagcaa atcaaatatt gacccaatca atttaagcta cagtggaaat caaataactta 180
 ctacctcaac cagccccgca agcacattta gctatagcaa tgcactccgt ggtcagacta 240
 ctcaacgccc ctttaataga aacacaaata taccaaataa tgaccgattt tggcctcaac 300
 taccocaaag aggaccacaa tccggtgaca atactcaatt tagttctagc ggtgtttcaa 360
 atataaatcc aagtcaaata aataactaca atcaaaatgt aagaccacag agtgcaaata 420
 ataatagacc attcagttac agtagtattg nggggtgcac caataataat ctgccaatct 480
 gtactcctca acaactaa 498

<210> 1216
 <211> 343
 <212> DNA
 <213> Ctenocephalides felis

<400> 1216

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caatgacaga aaaacctcgt attgntatca ctaaaaattc aattccaaca agtgatctgg 60
cttatactag gcgccaagaa aaaaaggcga acaatgtaga tattattcgt aagaacagcg 120
acacttcgaa taaaactgac tcgtaagaat tttgtgaaaa gtgtttgtga aagtattatt 180
ttgtcaaaag gacgatttan gctatgtagt gactgtatgg ttaagaacta tattagaact 240
tattgctcat aaatccaaac atacaataat ctttataaaa atacttaata atttattaaa 300
tatttttaca taaaaaataa aaatagtaaa aacgcaaaaa aaa 343
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<210> 1217

<211> 498

<212> DNA

<213> *Ctenocephalides felis*

<400> 1217

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catatgtaga aataccaatc aattngntga ttacatcaaa aatatcaaat gttnaattga 60
acttttcttt gaaaaatatac gatgaactaa ctattgattt gccacaaatc atatcgcaaa 120
catttggaag tgtgcagaaa actgcaaatc ttataccaga aaaagacgaa acaacanttt 180
cagataaaca acaaaatttt gctaatagaag atttgtagtga tccagagaag tttagacaaa 240
tgccagggtc ttggcccgtt gacctaccat tgcctatgcc ttgttgggga agagaaactg 300
atgcaaagt agatttttca tcagtaataa aatatgaggc atttgccagc agagtagaaa 360
tgacggaaca gagattattg gaagagacca actatgatac tgtagataac tttttacaat 420
tcagccagga atatagaaaa atgagggatg cttccgaaca aattatgacc tggataaatt 480
cttncgtgct taccacca 498
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<210> 1218

<211> 420

<212> DNA

<213> *Ctenocephalides felis*

<400> 1218

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ccnaanntta atccctgttg atatagcatc acgaaatgct cccattgga aactgcccac 60
tgngtatact ggctttgctt ctttggttat ctcttcttca gaatttactt ggtctgcaag 120
tagttttatt tgcattacgt ctctgtaagt ttcttttctt tgtaaaacag ccatggcaga 180
ttttgctaaa gcagaaactc gttttattcc actttcagac gctccaggaa acatttcgga 240
tctacatta ctacatctgc ctaacggcaa aaccccaatg ggacaagttg caccatctgg 300
tcggcgtaac attcctgtaa cagtttcagc taatgttcca tcacctccag caacaagtaa 360
agcgtctggt aatgtaggca tttcctctat aatttttcta gcgcttcctt ctgcagttgt 420
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<210> 1219

<211> 183

<212> DNA

<213> *Ctenocephalides felis*

<400> 1219

ctttactcat tgtgccaaag ccagaacaac aagctctcgt tgactcaaca aatgatgtng 180
gattaataaa actgtttgat cgaaagtaaa ttgttataaa aacatctgaa cacataatca 240
atatctattg attaaatfff gtatgaatga gacattagca tttaaagtat ttatctctaa 300
cgcattttct acttaatgta gataactatt ctttgggaaac caaatctatt gggtacaata 360
aatatttcta agtgttaaaa aaaaaaaaaa aaaaaaaaaa aa 402

<210> 1223

<211> 207

<212> DNA

<213> Ctenocephalides felis

<400> 1223

aaatgatatt aactttataa ttttttttta taaaaagcca aaattttctc acgtgcgcca 60
aaaattgtgc tacaaaagta aaacatctgg tgcttaacat atttttgttc aagcactaaa 120
aatagtgttt aatttgacct taaccacttt gggttatatt tagcaaaaat ttattaaaaag 180
cgatataaat aatattgata attaat 207

<210> 1224

<211> 427

<212> DNA

<213> Ctenocephalides felis

<400> 1224

tcatacattg caactgatgt agacatatat tcaagcatac ataaatactc cttcacaaaa 60
taaatacaag atcgatctac taataattgt tacattttta tatatatcgc tatttactgt 120
ttgtaacaac ttaagataat tcattttctt ctatttgaga aagaaaatga tcaaacattt 180
tgcaaagaat attaaaaat aattatatca cgaaaaagtt ttattcatgg aatcaaaagt 240
tattcaaaat gtcaactatt taaaaactaa attaacaatt acattcaatt ttgatacagt 300
tattaaagta acatcaataa attttgaata cgcatttaca tgaatagttt cttaaatttt 360
gaaatgaaaa ctgacaatta tttaattcag gctaatttta catttgcaat ataataatca 420
ctacaag 427

<210> 1225

<211> 263

<212> DNA

<213> Ctenocephalides felis

<400> 1225

ttcatttcag gcataaattc tgttgttttg tgaccattaa taacatcaac ccctggtaac 60
atatgaccag gccagtgta gtgcctggg tcatattcaa atttcacagg tgtgctcaca 120
tgtggagcta aaggaggagc cagagatctg agatgatttc cattagagga tgggtggactg 180
ttttgttctt ggaagtatct tctggcaaac atatggtgtt tcttctgagc aacaggaggc 240
tggcgcgagg atatcgaggc ggt 263

TTTATT "SEE" 660

<210> 1226
 <211> 295
 <212> DNA
 <213> Ctenocephalides felis

<400> 1226
 tgggttagggc ccncccccg acaaaccaca antattaaat tagaggagag gtttttttag 60
 taaaaaaaaa aaaaantaaa gggcaagggt gaaagggtgg atgcactttc ttaaataaan 120
 nnactgntaa ataaagntta tttttatatt aaattacaat taggactaca taatgcactt 180
 taaaaattat ggcatagtta agacttcatt agaaatacaa taagctacaa ttataaattg 240
 gattatattt nggatttttta tcataaaaaga ataaaatcat tcagaatgca aaaaa 295

<210> 1227
 <211> 335
 <212> DNA
 <213> Ctenocephalides felis

<400> 1227
 ctggcacttc cccaataaaa aacgccannn aaacctaata ataggaatt aaataagact 60
 gggngagcagt gatgatagcg gagctgtgtc tcctgataca actacaacaa tttctccttt 120
 aaagaatgct gcagataaaa ctgngaagac taattaattt taatgccaga taaacttgat 180
 ttttgatata catatgttgg tatgtagtta tgaatttaat atactttaat taaaccatt 240
 ccaaaaatca taattcatat tttttaaatt tgatttaaga aatcttaatg tgtaacttta 300
 ttttgttttt atttagagct gnaaagtttt attgn 335

<210> 1228
 <211> 225
 <212> DNA
 <213> Ctenocephalides felis

<400> 1228
 caaagggttn aaaaggtccg gnaacaatcg ttttttttc naaaataaaa ggantgtnaa 60
 ngggnggggn tattgggang aaaaaaagta naagaacccc aanntattgg ccccgcaa 120
 aatgcatgtg aataccttat ntcataaatg gcgggnctat gggctttggg cacaaaaatg 180
 gctatcaagn tacatgtcct gnaacaagnc taaggngctt tcgna 225

<210> 1229
 <211> 435
 <212> DNA
 <213> Ctenocephalides felis

<400> 1229
 tcttttaaan agagttnggg ttaaattcat tggactnttc aagaaatgca caggcttgng 60
 gggngggtga aaaccagcgg taaacttgga aaaaaatatt ttggatacaa agttaaacgt 120
 gctgatcctg aattaataaaa aggntgngat aaaacctgtc ttaaaaatca tatgtgtgca 180

atagttacca cagntgtatc agatctcatc cagtgcacaaa atatcatcaa atcatcatca 240
 agcattcttc agcatttgaa tatatatgtc ctaggagcta ttgtaatttc caattattta 300
 ttattataaa gtcatttttg ttaagttatt ataaatttag aataaatcat tatgttggaa 360
 atatgtaaac gctttgaaaa agctaggatc aaatcaaata ttttttgaaa aaaaaaann 420
 naaaaaaaaa aaaaa 435

<210> 1230
 <211> 282
 <212> DNA
 <213> Ctenocephalides felis

<400> 1230
 ttttatatta catagatntt ttcttttatg tttttgtaag ctttgaaaaa acaattngtt 60
 tttcatatat atttttatata caagaatgtc ctgtatgctt atttttttta tccaacgaaa 120
 taaaagaaca aataaacgta aaaaataact acattatgaa cccaataaa atataatact 180
 cctgtgtaac gcgggatgtc gngttcccat tgtaatttta tgtaaatatg tataatttga 240
 aagctcgtat attgcttggt ctattttctt gtatataaat gt 282

<210> 1231
 <211> 101
 <212> DNA
 <213> Ctenocephalides felis

<400> 1231
 cattcaaaag atatcattta aatttattgg gaaattaact ataataataa taattgattt 60
 atttcttaaa gctattaacc cattattttc aaattgcatg t 101

<210> 1232
 <211> 224
 <212> DNA
 <213> Ctenocephalides felis

<400> 1232
 ggttgaaccg ttcaagtatt ttataagtga tgtctctgat tgtgtatttt tcaaggcact 60
 tgattttatg ttcattgttt taatatcaat gtgccttctc ggtagtatat aaattttaca 120
 tagtaaatcc tgtttttgat tttatcgac attttttggt ttgttttaaa ttaattttac 180
 aagagaccat cacttataag ctgtaatttt actaaaacta aagt 224

<210> 1233
 <211> 347
 <212> DNA
 <213> Ctenocephalides felis

<400> 1233

caactgttga agatgagaag aaaccagtta ccaacggaac tttaccaaag attgaagaaa 60
 agtgtgacag cgttgcagac cttaatggat ccataaataa atcttttagat catctaaagc 120
 caccagaagt agcagttgct gatatacaaca cctgtattcc agaaaagaat aaagactttt 180
 tatgtggtat cagagaaaagt cagctcttan atcatgaact gcagtgggac tccatggaag 240
 acaaggaatc caggcagaac gatgatgcag agtcggacca tagcgaagaa gacgacttgg 300
 gtgaattgcc ggtaagaacc gtattggatc agtatgcacc tctaggt 347

<210> 1234

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1234

tataactata ataatggggc aattctgctt cataacacat agttgtcatg gcaacgcgta 60
 gtgaagactt cgaaaacggt aagctatttg ccgtgcatc aggcgtnttt tacatataaa 120
 catagcaaga aagaatgtta tgaaaacagc atcataagat tcttctttgc ttgtttatat 180
 gtaaaataaa tgtagacatt ttnatattgc catgacaacg ttatattatg agctctgtta 240
 cgccagaatt gcccataag tttaaattt cttcaatnat ctttctccat tggtnaaaaa 300
 atattttatt tacagtnnta gcacagtctt gtgaatctat ttgcgaattc tacattttaa 360
 taataaatat aaaaacant gaccgccatc cgcatactag aagaaacatt ccaatctgat 420
 acctcattcc atttgntcaa aatnaaaaat aaaattacag ncgactgatt tattcctggg 480
 tgcttaaaaa aaatccnt 498

<210> 1235

<211> 337

<212> DNA

<213> Ctenocephalides felis

<400> 1235

ttttataagc agaaccacca ggtgaaagat aaacgttcca ggatcctgca ttattgaaaa 60
 ctttcagaaa attaccagat aatttatttt gtatacaaaa cgngtctgta tatgcagcag 120
 cctggatgga agatggtaac ttttgtatta gtttggnaac ttntttcttt tcatntggnt 180
 gaaaattgga tcatnatac acttttttga cgcgttgac aaaagtgaaa aaatcatcgt 240
 aattattggt tngcaataaa tcatcacta caaataaccc atgaatgctc agtggttnagt 300
 tactgntgna actaacaaaa tctatgagag aaagtgt 337

<210> 1236

<211> 351

<212> DNA

<213> Ctenocephalides felis

<400> 1236

taacccttta nggattccct tccgngccng aannnggtta acngngncgg cgggccgagg 60
 gtccatccta gggcgaaaat ttttaataa gaaataaaat gaggtcgcct tctttttgaa 120
 aaccattttt gttctttgnt aagcagnatc ggcaggtgaa acataaacct gncaggatcc 180

tttataatta actttcaa atattatcaga ctctttatctt cgtatacaaa atgtgtncgc 240
tataagcagc agcctgaaca gaagaaggna aacttttgta ttagtttggt aactttttgc 300
ttttcatcag ggtgaagatt tgaatattna tatgttcctc tgacatgtcg n 351

<210> 1237
<211> 156
<212> DNA
<213> Ctenocephalides felis

<400> 1237
aaagccagcg atagnataga actgctatgt ttncctccaa ataccactgt tgttttatca 60
tntaaaaatg ccataagtat ggagctaag catccaatca ccatcaatat atatatatat 120
gaagagtctt ttatccttcc tgggtaaagn ttctgt 156

<210> 1238
<211> 347
<212> DNA
<213> Ctenocephalides felis

<400> 1238
ttnccttnttt tttntntttc tttttnttta ttngnataa ggggggnata attcatagnt 60
tatcttataa attacaaaca tgaagtcaag ccgnttgatc caatatgaan attggtggat 120
ataaatatcg atgatccaaa tacaagtctg ntgntcaaac cttcaagnga tataatacaa 180
aaattatgct ggaatgcttt gggtaggaac tcttatcccg attaaaatga cgagataaaa 240
ataaaaacag caaatatgcn taaaatgagg atgatgtaga tgaaataaag atgnnnatat 300
taattaatga tgttaatgaa cacttttctt agaagcactt cctgtgt 347

<210> 1239
<211> 598
<212> DNA
<213> Ctenocephalides felis

<400> 1239
tataatataa ngtnnttagt attaaatggn ttgagaaact aatttagtta agttgtatac 60
antaaantat aatcngngga nantatgttt atatttatac ancctcgaga tggagnttaa 120
ngttagatga atatatataa atgtatgntc taacaatngt aatattaatg tnaattttta 180
cccggaaatt aaggaaaaaca tngctttgat gactacttag cttccgatcc agaggtgatt 240
tagacattta gtttagcattt taaaatattg tgtagctaac atttcgngtg attttgcaac 300
taatcagtta ttttaagaaat gtgcatataa ttattatata catattatnt tacataacctg 360
gntagnattc aaaaaacttg ncaattactt cgccaaaaga acattggggg gataataata 420
tcatattatg caacattctt tattacgggn agtttacttg aaggatctgg tttcttgctn 480
tttttcattt gatcagaaaa taatcaaatac tacagtattt gggtagcagt ntncgaaaat 540
taacngntt accatattaa aaaattnta taattcanna cccggtttgg gaaaaaan 598

<210> 1240
 <211> 446
 <212> DNA
 <213> Ctenocephalides felis

<400> 1240
 ttgaaatatt atgtgtnatt atatttatta tgtagtaaa caagtgaac cgctgctata 60
 aagnattggt taatctgaat gtttatatat attgtatttt caagattatc ggactatgg 120
 tatttcttac aacattcata ctatacaatt ataaaaatat atgcantttt tgnntgnnta 180
 catattggng gataaccac aaataatatg aaatggaaa aaaaatgtaa accgngaca 240
 caaaatactg gagacaatta ttataacang ggatattcaa cttttaaant ttcatacata 300
 gntttttatg anctcgcttt tgaaggattc attcatttat tcaatccaat gncnaatcat 360
 aaatttattg gnntttaggg gcactactat attggattaa taaganaaac aacttngtta 420
 tgaaaaaatt caantaaac catgnn 446

<210> 1241
 <211> 274
 <212> DNA
 <213> Ctenocephalides felis

<400> 1241
 ttttaagtcta aaagaaatcc aagctttttt atctcaaagt atcaattttg attttaaggt 60
 gatttaatta ttttatataa ttatatataa agaaactggt ttacaatcag tgaatatttc 120
 cacaaaatta ttaaaaactat ataaatataa tacaagtcca tcataggtat gactactttt 180
 gacgaaatat tcataatttt gaccaactac cctctttcat aattttgacc atattatcaa 240
 gttaacccaa acttatctta aatatgcat atgt 274

<210> 1242
 <211> 102
 <212> DNA
 <213> Ctenocephalides felis

<400> 1242
 tttgatcca ttcattttat ttacaactta ctatgtaatg taaattaaat gtgaatnga 60
 ttattataat aagtgaat gttgttatt caatcacatt gt 102

<210> 1243
 <211> 193
 <212> DNA
 <213> Ctenocephalides felis

<400> 1243
 ttcaaaatat acaaattcgt atatgttatt tattntatat caccaattta tacataagca 60
 tgggnaaaat tcttacagaa ttactgaaac ataagataaa atatgttcaa aaatatgatt 120
 gacgtatcac tggcagcttt gtaatattaa tattgaacga tatgccaatt gcaattgca 180

aatatattat agt

193

<210> 1244

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1244

atcgaaatag tcttcagcat catcgactgt naccacacaa ggtggtgctg atatgttngt 60
cagcgttttg agtaatccca aaagtaaaac cgctgataat gtaactgcta tgatcaattg 120
gagagatcta tcttgatata agtttcttac taaccaagca cctcgccatg aattcacaca 180
tataaatcca taaacagcgg tgtagacca cgaagatagt gcaaaacatg tgtagattt 240
accttctaaa tatcttttga tcggtccttg tgccaagcaa aatataaaca tccaataaaa 300
gcctatggcc aaagacacga aactgctata tatttcatta tctgtataaa cataatgtcc 360
cattagattc cagctgcttc tccaatacc gactacggcg ggcgcaacca gtgtagagc 420
aaatagagca tccaaaacat caagaataac tgatgatttc aaaggattca tagtcatcaa 480
tgatcaccgg aaggcttc 498

<210> 1245

<211> 112

<212> DNA

<213> Ctenocephalides felis

<400> 1245

tttttttttt ttttttttat aaaataatct tttattccaa acgtttcgac attcaatttn 60
ggngtcatca tcagtggata ttgaacatag ttttttatat ctaaaaatgt gt 112

<210> 1246

<211> 379

<212> DNA

<213> Ctenocephalides felis

<400> 1246

aaccgttggc aaatatcaac ttccacatca tcancaaatg ttttatccca atcaggcgat 60
gaatccaaat gattgaattc attacactgt tcaggctgag tgtaaaataa tgatgttgga 120
ctttgaggcg gagtaaaatg atttagttcc actttatcat aaatgcgttc aaattctcgt 180
aaaagactct cagtgtcttg ttgaataaaa tctgtggtat caaattgctg aggaaatttg 240
gtttctccgc ttagagtttt gttcatacca gttgtagtag acaaatcctc cagcagaggc 300
aatccactt tctcctccag ccattgagaa aatgcttcat tagtaaagt atcttccagc 360
aagcacgaat cagcaaagt 379

<210> 1247

<211> 230

<212> DNA

<213> Ctenocephalides felis

<400> 1247

ccttgctgaa actnctcctg atatgggcca tttttttatt aaagcaagcg aaaaaaaatn 60
nggnaatgaa tgnctcagta atcttaatgc cgaagcaca gaaaaatttg ccaatagagt 120
caacattata atcaaacaag ccaaaagtaa agggtttggt taacataata caaaatagca 180
attagaaggt ttagaaaggn ttaataataa ctaattttgt acctcggaag 230

<210> 1248

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1248

catctattaa ttccagtatg gtgcttncct gcaacaacat cctggatagg aagtcttctg 60
attcaacctc cgcgtctaaa ttcataagtc cactttttcc atcttttagga ttagttaaat 120
tcgataacaa gattttttaa aacatctgta attcaagtaa atcactaata aaaaaatctc 180
tatgtgctgg ctgctcaaga atacttaagg cttcaaacc aacagcaacc gatgattggt 240
caatttcatt agcatcatct ccagcaataa natcaatctt gaactccttt tcttctattt 300
tatcattaaa atatgcaaac ataatttctt cttcagtttg actatcatca aatgccactt 360
catagggcag cttatctaaa acaacacgct tcggttcctt gcagtgtatg aattgataaa 420
cggtcgtgtt accaaattca agaatatgtc taacaaccgt ctatgcctac ctttacattt 480
cttttatttt tgaatcct 498

<210> 1249

<211> 290

<212> DNA

<213> Ctenocephalides felis

<400> 1249

agtatcagta ggagtgttat gtgcaaattt ntaaactcng tatataaaat atatatggt 60
tagattaaat gaatcagaac aatcttaaga gccacaagg gtatggcatc tagaggatac 120
cgagaggata ctaaaacgaa atgatagatt taaaaagtg ttccacctta tatgtcttca 180
aaatatgtaa ataaaaacat cttgaataaa ataatttctc aatgttngtc tgaaattgaa 240
agttgtgatt aaagttatag ttactagatg aaaaaaaaaa aaaaaaaaaa 290

<210> 1250

<211> 345

<212> DNA

<213> Ctenocephalides felis

<400> 1250

ttaaataaga caaagaaatt cactccacca ntccctata ctatcccttt aaagcccttt 60
ngncaattca acgtccacat agntttccac agatggcgcc acatagaaat cattgctttt 120
ttataatcgn gttcgaaaaa atcttatctt attgttagtc tattaattaa gagttaagtt 180

tttggttaact tgtcaacttg ttttcgggtg ttaatatTTa aataaacaAAA tgaatgtaaa 240
 agtgactgac ttgtcgattc aaattgttat tacaacaAAA tcagtcattt aactttgaac 300
 ccagtcgaatt gttaaaatac atattataaa cacatacacg taagt 345

<210> 1251

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1251

ttaaaaaAAA gaaaattacn ttcanatatt tttttatnct tagttcagng tgtgcatata 60
 ttggttattt agaaatcttt ataaacaata ggacacttac atttcaaaan taggtgttac 120
 gaataaatta tnatctcttt cactacatat attacaatca acatttatta aatangngtt 180
 gantttattt attgtgcaaa taataatatg ctttccatgn tctgtaatca actgattaan 240
 ttacttgtat nangcagng ttttacctac acatttttagc tactggtaag ctaggcataa 300
 cgtgaaangt atatcttanc tegttttgac atcaaaaagcc ttttcanctt aatgnaaaga 360
 atggaaattt atgtaataaa ntangagcac cctttccaat cattggatgat gccctangnt 420
 atgccctatg anaatgttgt catcataach nttntganat aatccgantt tatatgaatc 480
 ttntatatgt gcgaatat 498

<210> 1252

<211> 258

<212> DNA

<213> Ctenocephalides felis

<400> 1252

tcttccatca tggagaacat ttggggtaac cntaatctta aagtattcaa ccccaataaa 60
 ggcagaagtt gtatagcaca cacnatgatg cantttttca aatgtggtgc ataaaataaa 120
 ggcttgaatt gtttgaaacc agctttaaga gcttccattc cttcagggtt gggagaacca 180
 tcttgtncat tggcttttgt ttctttcacc agtngtttta ttggatattc agtcttgtna 240
 ttccaatgat taatcctg 258

<210> 1253

<211> 364

<212> DNA

<213> Ctenocephalides felis

<400> 1253

tttttttttt ttgttcattt tgtntgaact taagnatata tnttnaggga aatttcaatt 60
 taaatnatcc gcnatatatc atacatgtaa ggcaataata cataatttaa ttaacgcatt 120
 aaatttaact atgtaaatta tgtannngntg atttatctac aatgttttta acataatata 180
 tttaaaaatt catggaaaaa tnatcttaaa nagctaaata tantaatatg gaaagcctgc 240
 gctntgcttt agcatattta taaatagcat ataataattn ataatanatn cntnanttag 300
 ganatcattg ataatcattt attcttgtat tacgnnaata taatagtaaa ttacaaatgt 360
 tngg 364

<210> 1254
 <211> 318
 <212> DNA
 <213> Ctenocephalides felis

<400> 1254
 cttaaaaaat cgccccacaa tagttaaagg canttggacg atagcaacta aataacataa 60
 anggtattat ataaagattc caatcaatta tcatcgtcac cgtcgtcgtc agccacaaag 120
 aagaaaacca accagtgact gatgatccaa cacgatgatg atgatgatga tgatgatatg 180
 tatatatgta atgttttacg gtgttaattt actattatcg gacgaatcaa gattttattt 240
 attaagatat gggaaggtag tcacaaatat tttttttntt aaatngatng tnncccatc 300
 ccaaaccaaa ccaaacca 318

<210> 1255
 <211> 312
 <212> DNA
 <213> Ctenocephalides felis

<400> 1255
 gtatttgta aataaaaata agtcacatct tanttctgcc aataatatta aaaatgcaac 60
 atntatccag atgcaactaa ctgaatatca ctttcaacaa ctcaagacgt acagatgta 120
 cgataaaaaa acagcccaca ataaatcctt gttgcatatt ataaaataga tgcttcaca 180
 ttggaataa ggctaaataa aatccaacat caccagacc aggatatgat ttgaatatag 240
 caattaaagc tgcgagactc gttgctaata acataggctc atgtttgaga cgaagagaga 300
 gcggaagcaa gt 312

<210> 1256
 <211> 135
 <212> DNA
 <213> Ctenocephalides felis

<400> 1256
 aaaaaaagtt atactaaaaa aaatttactt gactgagcac ttagtacaaa aaagttatac 60
 taaaaaaatt tactcgactg agcacttagt acaaaaaagt tatactaaaa aaatttactc 120
 gactgagcac ttagt 135

<210> 1257
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1257
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tccagtaatg gttttaataa aattatgccg atctacattt tctaaacatc ggcaaaatta 120
aatcacatta taatgttaac ctttcaaaaa aatactgtcc aaaaagtatc acactttgat 180
ctacaaatgc aaaatggttg aaatcaagtg aagcaatgtc atttatacat caaaagccaa 240
tttagagtca cttgtgttca cccactttgt ttataacatc gtcaatcaag gcgggataaca 300
acagtgttta ttgtaaataa attatttcta ataaattgac aaaccatcgg gtaacaaaac 360
aaaaaagtta atactgcttt tcagctttgt gatggttaat ggttatgctc gaataaagca 420
ttgactgtgc catcaagaaa gtatactngt ttccattagt atttcgattt attccaattc 480
caatcatatt atcacaaata 500

<210> 1258

<211> 485

<212> DNA

<213> Ctenocephalides felis

<400> 1258

tacttttact ttgtaaaatg taaataatag gantcactga gacttaaatg atccattggt 60
attcatacaa gttaatgata tctgtgaggt atttaacgag caaaattatt ttgattctta 120
agaagtatga tgtttatagc cttcttaaga agttatgata ctgttatagc cttcacactt 180
tgagaaagat aatagaaatt gttctcacat aaatattact cattagcagt ttaacttaaa 240
aatgaaattc ttattcaaatt ttgaataaaa aaaagttgca tcaaagtatc acagtataca 300
acaatattag aatcgatatc ataaattgtg ccaacattct gtgttgccac tgatatcatt 360
attcatttga aatatcaatg gaattatcaa ctgaatagag aagtatttgg ctgagcttaa 420
tataatacta atagcgagat ctgaaattaa caaagttgaa aactaaatag tattatttta 480
ttagt 485

<210> 1259

<211> 232

<212> DNA

<213> Ctenocephalides felis

<400> 1259

tgtaaacagc actttgcctt tgtaggtttt atogaaggct tcgctcaagg ttttgatggc 60
tttggtgagt tcagtttttg ctttgtcggt ttcttcgggg gatttgaaat ttgttgctaa 120
gcggaagaag aataagctag gacgttcac aggggttagt tctaagactt tgtcagataa 180
aagcgttgag gacaccaggt ctttcacaaa cttctctggt aaatcacttt gt 232

<210> 1260

<211> 371

<212> DNA

<213> Ctenocephalides felis

<400> 1260

tactttataa aaaaaaaaaat caaatctaga ccaaccaatg atgagagtat agcgcagcac 60
cattcaatgg taaaatttat attttagaaa aaattactta aagaataata ttgtattgct 120
cttcagattt atcttcagaa atctaaatat attttgaaaa tagcattgcc aaaacattac 180

tagccaacta tttcaatagt cagaaatgct attttcaa atttaagcaa tatgcaagtt 240
 atttttttgg aactgataag ttcactcagt caatttcccg atttataagg tttcaatata 300
 atttgttaac ttcacttaac ttttaatctg tatatgaata ttctgcataat ctttctaata 360
 atctttgaag t 371

<210> 1261

<211> 401

<212> DNA

<213> Ctenocephalides felis

<400> 1261

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 atgtcaaatt tgggtgtanat cctagtgtgt tattacttat tccttgattg tttgaaatct 120
 caataatttc gattttatcc aaacttttgt cacagtcaaa atctggtaaa atctcttcat 180
 aacgtttgtg aacataagaa tcatgatcat cttttggttt ataattaata atcgttcttt 240
 ggtttatttc cttgtaagca aaattatttt ttacaggcgg cgtttcgacg tcgttatatt 300
 ttgcattgct taaaaagctt gtatcgacaa aatccggaat tgaatgagaa tttaacgttg 360
 cgttgtgaga tgaatttaca aaaggttgat acacactttg t 401

<210> 1262

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1262

catcaccgag aagaactctt cggctacgga ntntcttcat tggaggcgcg ttgttggtgc 60
 ncgcagcatt acttttggat ttagaaataa attaatattg gattaagaaa aaaaaatta 120
 aacataaata taacgatctc tctacaaacc catataagtn ttcatattga ttcttttagc 180
 ctttaacttt attttatatg aaaaactcat atttcttctt ttgcatcgga ggctttacat 240
 ttagataaaa gaaaacagat tatttgactt atttaaagaa ataattatan ttcagaaaaa 300
 gaatatattat tacttttatt atattcatta ccgtttatta tgattggttt taccgagcca 360
 aactgataat aacatgcatg tatatgctta tatagtcgca cagtttttta acattatcta 420
 ttatttagtc gttaaatttt aataacattt atttatttat ataatttagc gccgcaatct 480
 ctaatcaaaa ttacgtga 498

<210> 1263

<211> 452

<212> DNA

<213> Ctenocephalides felis

<400> 1263

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 acttcttcac ataattotca tttataaaac gttggaacaa aactccaaat gttgttttcg 120
 ctttogaatg tcgaaatagt gcataaaatt catcgaagtc caaaaaccgt gaatgattag 180
 agtcacccaa actcataaga tactgagtcg cagattctgg aaactcatta ttatattcac 240

ttctctctac aattctttgt aattctctga cagatatcaa gttatcatta tctgtgtcat 300
 actttcaaaa tacaattaat tattgttaac gtgcatacat aaactttgat ttattataat 360
 ttaccttcc cgaataggta tctgatatat tgatcagttt ccctcaacgg tatattatat 420
 tccatctcta attgtgatat ccttctctga gt 452

<210> 1264

<211> 490

<212> DNA

<213> Ctenocephalides felis

<400> 1264

tttttttttt tttttttttt tttttttctt tactagatgt ctttattcct aatcccaaaa 60
 tattatatgt cgagngtctt cttttatcag aaggatcgac atccttcaat gcacttttct 120
 ttccaaaaat gcttaatctt ttagttctta atttttcaga gttatgagaa tcatttaagt 180
 cactgttgat tttttggttg atttcattaa tactggctaa agatctgcga cgcatagaat 240
 ccttttcggt atcatttagc aaatgaatgc catttgagga ttcgttaata tacaagtag 300
 ccattgtttt ggctttgaaa tatcacttat tggtatatat cacttattag tttacaataa 360
 cactggtaaa acatagcatt ataagttttt gggtcacatt ttcactcaca aacacgcggt 420
 cagtatccgc gcgagtattg tgaaagcaac agacgaaaca ctgcggttaa atgtcacacg 480
 gtgttttcgt 490

<210> 1265

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1265

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 gctgcattta taattttacaa atatggcata tacgactgga tttgtagaaa agttaatggt 120
 aacagaatgc tacctcgata tgaggatgtg atgatagggc aagaagatac tgacgatgat 180
 cccttgccat aagtgaatat tataatttta ttttttcttg atctccttac aatgatgtag 240
 aatattgcct tcaagtcata tggttgtaaat agttttacaa aatgataatg ttatttatct 300
 attgaatata tgtatgttta tgtaatttat ttaaatatta atttattaac agatgatgac 360
 tagaagtcac aattgtgtta ttgaagttgt tgcattgtaa tgaattattt ttaaatagat 420
 atattcaaat aacatgaaat aaattttgta tttgtgattg gtgaaagtga tggaaatatt 480
 ttgttgaata caagcata 498

<210> 1266

<211> 311

<212> DNA

<213> Ctenocephalides felis

<400> 1266

aacaattctt tgttttaata tcgatatata atcacgattt tagtttatga tatctttatc 60
 tgggctcatt gtgaagattt catacaaaaa tcgatattaa aatattgata acttcaataa 120

taactgtaat ttccatagat atttgcaaga taatcgataa atctatcaat attatcgata 180
aatatatttt ccccttttta gtcgaaagta ttatatagat tctattaaca caaaaacaca 240
cagacacaca aattagttta agtttagacg acattccggt gaaaaaaaaa aaaaaaaaaa 300
aaaaaaaaa n 311

<210> 1267
<211> 453
<212> DNA
<213> Ctenocephalides felis

<400> 1267
ggccccgtac cggaagtgtg agctggcaca ttgacttaa cttcattttt atcttcatac 60
tcaattatat tttcntttac catttctcca gcagaaggtg tcacattctg tgtttctaaa 120
tttgatattt gataatcatc actaaatcta tttcgggacg gagaccgcca tctgcttctt 180
ctacctctta attctttcct tgtaacaaac tccaaaaatc cttcagaatc tggcatcaca 240
acaggttctt caggttggtga atccgcttct tgcacgcata attggaaaat tgggttggtt 300
ttgggtgttc cagctgaatg tttttcaaaa atattcgatt ccgtgatttg tggcacttga 360
gaaggcaatt cgctattagc tttgatacca acaatagacg cccatgatgt cagttttggt 420
tggtcaagta gactcacata gcggttggtc agt 453

<210> 1268
<211> 498
<212> DNA
<213> Ctenocephalides felis

<400> 1268
caaaggggca agcaccacct gggaaatttn naaatgcaga attgatgaaa attccaaatt 60
tcttgcaactt aacaccgcct gttataaaaa gacagtgtga ggcgttaaaa cagttttgca 120
cacagtggcc aaaagggtta gaatctgaag aaaaacaaaa taaacatttt cctgttacag 180
taattagtgc tgattattgt cacagcggtc cgactataag aaatccatta ggtagaattg 240
ttactttgaa ggtcaaatta tcggatttac cactagacaa gcatgctcgg gataagtttt 300
tacggttagt tggtgacaga cagcatcctg atacagatat attaacatta gtagttgata 360
gatgtccact gaggaacaaa aattatgact atggcatgta tttgctgaca gctttgttcc 420
atgaatcttg ggtcactgag ccttggggaag cagataaatc tgaggcggat atggaatatt 480
acgattggca aaataatg 498

<210> 1269
<211> 285
<212> DNA
<213> Ctenocephalides felis

<400> 1269
tgctgctttc tgctagttag gtatttgctg tttctaattg agtatttggt gaagtattnt 60
ggcttaaggg ttgtgattcg gtgaggtttc cattgctttc attcacgttt gaacttgag 120
cagttgtgga tgggcttatt tcatcattcg ttgactgtgg ttggtcgtct ttaacgtcac 180

tgtctgggaa agcaatagta aaagtatgat tatgagtga tttttatttg ctgactatt 240
attattatct tactaagcaa acgcctgggc ccagggtcag tctgt 285

<210> 1270

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1270

tagagccttt ccaaaaaagt gttactgagg aagatttgat aatgcgccta gaaatagtag 60
cttgtgattc aacttgtgca aatgtaagac catgtgagct ggctcttggt ttattatgca 120
cccaacttga tagctgtgtg tctcaattgg aatctcatalc tgctcaaacg atgcttaaat 180
tggttgattt tgctattcac atgcagaaac agtgcaggat tcctgactcc agcttcttca 240
gttgtcacgg ttgtgtgtgc aacatactgt cgaggataaa caatcaagat aaaagtccac 300
acaggcaaag acttggttgg aaattatctt cgcgcacatt gaaacttctt cgaccaacag 360
atcgtcttac atcacttctg cccactattg atgaaaatgg atgtctacca aggcttagaa 420
ctggcagtgt gagttctgtg ggcagtgaag atactgaaga ttggcccacc agtcctcttg 480
gtcccgttgt gagcaatg 498

<210> 1271

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1271

ccaancggtt ncanttggnn nttnnccnat tttnaattgn angggcccgg gncntagggg 60
gtaantttaa ttggnatttg ggcnttncat gacngngcan tnagcttctt gacnanttct 120
ttttacacat atttttanaa tgatcatata catanttagg tgggcattcn aaaacctgac 180
ctttaccatc ttgtcagaan aagnatnttn tgcnttcttt tcgnatctgg ctgatatact 240
acaaccgccg catgtanntt ctgccgtctt acagctttcc ccagggtttt gatgagcaca 300
tattattcta cacaaaatgg gaaccatttg gaaatttgan tccttcttca aattgattgt 360
angaaatttg ggggtttctt tgcncnaccc cacaaacttt aaaagnaaaa acaancnna 420
naaaaaagnt cccnacntgg ttattnaaat nonttgggcc cgtaccnccc ttaaacccaa 480
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<210> 1272

<211> 157

<212> DNA

<213> Ctenocephalides felis

<400> 1272

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cttttgtcac ttttattana ccaatatcag catagttgac agtaattttt gnggtatatt 120
tatgatgcat cacaaaacgt tcgacgtcgt agtatgt 157

ttacgaattg attttagagc attcaaatcg gatgctctgt tctctcaaaa acttaatttt 60
tattttctgc actctttgct tcgtatcttc gaaatagctg gatcggcctt tgccaaaaac 120
taatcagcac atctccctat caataggaat cgaatttttt tttgaaccat tcaaattggt 180
tgatccgtgc gtccgaaaaac gtgt 204

<210> 1277

<211> 150

<212> DNA

<213> Ctenocephalides felis

<400> 1277

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gttttttaaat aatctctttg aaaatattga taaaatgtaa tagaaaatac aaaaattttt 120
tgaaatattt agcttcataa aaaattccgt 150

<210> 1278

<211> 337

<212> DNA

<213> Ctenocephalides felis

<400> 1278

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agagcttgna aaaatattgc agcagaaata aattctctta aagcgtagc ttacatgttg 120
aagttcanta cctctcgata acaaaagaaa atgcnnacta cgttaaaant attcaatttt 180
tttaaaaaaa nntgggttgt ttgctttctg anntgtgctc gttgggggcc cccctggcgt 240
gggggccccg tatttttgat acngctgata cggnggtaag ttacgcccct gatctgcatt 300
natatacaaa tttaattta aaaaaaaaaa aaaaaaa 337

<210> 1279

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1279

aatttatagt tgtgtaaaat atttttttta caatcgggtc aggaattaat gtaacgttca 60
ataactaata cgctgacaag cggatcgatt taaaaaacgc ttgggcacat atgatttttg 120
gattctagga atcaaaataa gatactttgc tcaagaaacc atacgtntaa agtgaattct 180
ggttaatgaa acgttccggt ttacccatt tcagctgatg gtaaattgga caatgacact 240
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aaacaagtgc aatttcaatt aaaaataata acgcaatatt catgtcgctt caagtcaatt 540
cattactga 549

aatccacaaa actaccacat gaaaatctaa aaatTTTTtagt caatcttaac gaaaccaacc 360
aaagcaacaa aactatgaaa aatccaacaa catttccgct tgaactgtca tctaaaccga 420
atcttttagat ttcgtagttc aacatcaaac cacttcaaga catctttcta atatttataa 480
ttcacttata cgcttagaca agacaacttt ctatgacggc tcgattgtgt ncaaatgggt 540
gtaaggcat 549

<210> 1283

<211> 383

<212> DNA

<213> Ctenocephalides felis

<400> 1283

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ggtagtttta tttgttggtta caatggcaga agacacacca gatgaaaatg agaaattcga 120
agtgggaatg tcagagggtt ctttgaatga tgtagagcca gcaccacgtg tagtatgcca 180
acttgaggga aacagattat gcaatgctcg gtgcatactt ctaggaaaaa gaggaggctc 240
gtgcaaaaaa ggaacttggt actgcagaaa ttgaagaaat ttaatatagc ataatatatt 300
agataaactt tgaataaaac cgtgttaaaa attttgcgca aaatatataa tataacctaca 360
aattaaaaaa aaaaaaaaaa aaa 383

<210> 1284

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1284

gcgcacgga gcggttccct aagaaacatc tatccgtcaa tctatcaaac ttgtaaccgt 60
taaaaataat tataagagaa taccttaaaa taaaaggtag ttttcgttta aaatatcctt 120
aattgtgaac tatgtgataa taagtgtttt aagatagtgc ctatgttaat atttttgatg 180
acgagaacag aataagagaa caaaacggga tactaaaaga caagagcttt gtttgacacg 240
acagttgacg gagactagaa tgcaattgtg attttgaata tattaattt taaaataatt 300
agaaacaaaa atgtcgacca aagacataca agctcagaca aatggggatg ctgacatacc 360
tcagcggcga ccccaacata ggggatgttg tagcaaaatg ttatatTTTT ttaaagttta 420
ttggagaagt tttgtaatag tattagcacc aatattatta accccggctt tcttgaata 480
atgaaccgaa attccggtga tgatgtagtt atgtaatgct gatattgggt accgaagttt 540
acctctcca 549

<210> 1285

<211> 541

<212> DNA

<213> Ctenocephalides felis

<400> 1285

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ttcaagagga cgactaaaga agaattagaa gcacttaaag aggctgatca gagtgcacca 120

ggaataagtg aagaggaggc tttagcgcac agccatgatg ttgaaaactc atctgaaaaa 180
gaagaagctt aaactgtgtt gaatgcaatt tcaagttgta aaatttttgt gctttttgta 240
tatagatata tacaaatatt tgcgagaaga agtataagaa tgtttgagaa tatttgaaat 300
caagagaaaag ttgtgtcata atcataaacg tatttagatc ataagtagta aacattcaaa 360
tatcacttaa gtagtgtaaa tatgagactg aaagtgaacg attaagcatt tttatattta 420
aagtcataata atttatttct aagattagat atagaatatc tgtgatgaat aaattccaaa 480
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a 541

<210> 1286

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1286

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attttaaatt tccggtatgc aatatgtatg cattcatata acaaataaat taccgggtgc 120
acaattatgc agtgctgtta tttaaaagat aatgaaaatt gcataataat tagaaaatat 180
cataaacata ttcattagtc attttgtttt tatgtgaaaa atatgtgcat aaagttgctg 240
ctgaatagaa gtcggatttc ctcaataata tagaaagaaa tgggttcaggc tgacccaacg 300
tgcagcctct ggctggacaa aaacattgac agcagacgag gatctgattt tccccgcctg 360
gacttcgaca cgagttcaat gtttgaatcg aatgtccagt tgtcaagttc attagatgtc 420
atcgactggc aaaaactaaa attccaaacg gctagtatca acagaggatc gctgaggagc 480
aaatcatttg tataattaga ccaaaagata cacattaatg gaaattcgga ggataaggga 540
aagattctt 549

<210> 1287

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1287

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ttcctacaac atccatacag aggtccgggc attctatgga gcgacgcga ggggaaacaa 120
ttaggagata tccaggtaca actggtgaac gccccgccac gccaatgaca agaaccaccac 180
agagatcccc gggcgcgcc cccattagga ttataataac tccggtcagt aaaccctcgg 240
ggcgcgcatc gcccccaaca cgtggcagaa tattaagtgc tggccatctt gcgcccccta 300
caccgggtgta tcggcgcagc gcctctaagg gttcttcgcc cagaagaaga ccagaaaggc 360
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gaagagcttt ccatttatth tgagagtcaa ccaagaattg cagcagcagc ttgcgagcag 480
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gaataatga 549

<210> 1288

<211> 384

<212> DNA

<213> Ctenocephalides felis

<400> 1288

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taagggataa cagcgtaatt atttttaaga gaacatatcg acaaaataga ttgcgacctc 180
gatgttgat taagataatt ttaaaatgca gaagttttta aatttggtct gtgcgacctc 240
taattcttac atgatctgag ttcaaaccgg ttttaagccag gttggtttct atccttaatt 300
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aaattaaaaa aaaaaaaaaa aaaa 384
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<210> 1289

<211> 548

<212> DNA

<213> Ctenocephalides felis

<400> 1289

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acatatcaaa caaagaataa taaatgatgg aaattgtatt tttgtttttc aattcatatt 180
tttttaaaact tctgtaactc gccctcgtat gttttatttt acatgtacga ttctgccaat 240
gcttggtggt caccacttgt ctgcaatgaa taaaaaggaa tacctaagac cgtgcgtggt 300
tcgacttgat ccagtaacca tcactaatat aaacctgccca ctgcatttta aacaatcgag 360
cggaatcaca taattacggt accatttgca agcgttttta catatgaaag gaaactgttt 420
atttaccata ggcagtgttag acataaggta gtaggattaa tcgtgtatcc ccagagttta 480
ctgcaaataa acttttggca ccacctcaat gagaagcaat tgacttcact tgcgactagt 540
ttggtttc 548
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<210> 1290

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1290

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gaattacctc atgatgaaga aaaggcggaa aatcatcatc aaaatgttgc tacaatttagc 180
tgaatatttg ttctaactat attgtatgag actgttcgaa aaatgaagaa agaaagtga 240
gcacaattta aataatttta aaaatactaa aatatctatt aatgtagttt tagtgtaatt 300
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aatgtcataa gaaacaacta atttgccaac caatttgtca attggttgaa tagaatttaa 420
taaaaattaa tgtattttta ttcaaaaaaa aaaaaaaaaa aaactcggaa atatataggc 480
tttcgatgtt gatgccaaaa cagaccgggc caatctacga gcccttttaa ggaggaggta 540
tgggccaaag 549
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<210> 1291
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1291
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 gaatttttga aaagcttggt tgagtcccaa gtaagcttgc gaaatttttag aaagctaaag 180
 ttaaaatttt tgtttcaatg tttcaatggt tttgaatcat tcttatcgga tgctcctttc 240
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 tttggcaaaa agtaatcagc aagccagtag aaatcgaatg tttttagaat cagctcggga 360
 atcgtagacg aaaaatttta tccaaacaca cacacatata catacattcg atttttcttc 420
 agtatgccat aaattttata agaagacctt gactcactat attaaaaatg ncatgtgaga 480
 tttttgcctt ccctaaagaa ggtgtaaaat taggaattta tcatattctt ancagagcgc 540
 ccttactga 549

<210> 1292
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1292
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 gctcttcgaa tattttgcag aggagacttc ttaaaattga ctctaggatc attgacaagt 120
 gtgtgcttca aaacaaatca aacaaaagct ttgaaattcc tcaacgacaa ctttgatcaa 180
 cctgtgtctg caaagaaaca cataataaga ctcatcaacg ccatcggtac caaaaatgtg 240
 attttgaaaa tgctgaaaca actctgggat tgtgagaagc atccttctat ccgtaatgtt 300
 ttaataacgt ctgtcttcaa ttggtttgog agtgatcccg atgaggaaat atggaatttg 360
 ttgaaatcta tatttttaga tctgacgacc aaggataaag atatattcac catgcttctg 420
 agtttcgcca agtcgacaag gattatttaa aggaacatat tgaactttgt ggaagacgca 480
 acaatttgga gtccaggata aaatcaattt ggatgatgag aagtctaaaa tctgcacgcg 540
 taacgaaga 549

<210> 1293
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1293
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 atttcggttt acattaaact acaatttatt gacggtcgtg gcggctcgcc ctagtgaaat 120
 ttttgagttg aacccttat atgtaacact gatactgcac ttatatttat tgatattgtc 180
 tgtattttta catttttgtt tcattattaa aacttaaaaa atgaatgtcg aagttacgcc 240
 gaactattct tacgtctttg atttcgaaaa tgaatttatt catcaagaaa cgagaaattg 300

gatgactaaa aattggacat ggggctttta ttattgtgga atctacatgc ttgtaatttt 360
 tgggggacaa cattacatgc aatcacggcc aagatttgag ctccggggcc ttctgacagt 420
 atggaatgct gnctagcaat gttttcgatc gtggtgctg cgggacagct ctgaacttct 480
 cacgtgctgc gcactacgga ttgtccatag cgctgcgacc aagcttcac gacaagacgg 540
 tagcggttt 549

<210> 1294

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1294

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 agaagatcat cattaaaaaa gaaggaagta aaaaataaaa aagattccaa acggacgagc 180
 ttgtcttctt accaaaccag ctctgaaatt ttgagaactg aaagggaaat attgtctcaa 240
 aacttggaa atgttacctc tccgctggaa actttgatcg aagagccgct aaataacgat 300
 ttaaaaggct ctaatcaaaa tgatgcacca caacacgtgt ttccggattc tcttgaccaa 360
 tctcatatgt cgtctttaga acctttaccc gattggaaac ctgttatttc agatgaagat 420
 tgtcgatcac tttcaaaaat ggtggatgta tattggacga gtttcagaaa gggatggaa 480
 ggcaagggtg tcagatggac aatggaacat atatcaaatt atttagggag aattttgcaa 540
 tcttcaccc 549

<210> 1295

<211> 547

<212> DNA

<213> Ctenocephalides felis

<400> 1295

naaatnnatg tggcaaatga aatgagtga aatcgttgnt taaagcatta aatcgntaa 60
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 nacaataaaa ntgttnattg nttaacatta ncaanttaaa antatctgan tcttgncttt 180
 aaaatgacan tntgtatngg tgctggtacg tggggccaaa gtgtttatgg tgcaatgcgc 240
 acgttaatcc attntattgc ggcaacacaa tattggtntg cttgttacta tgattggaat 300
 tttgnacacg tncngnagag cgttcatgtn atgggtaatc cgttcgggtg aaaattcaaa 360
 tatctgacat ttattgatgc cgatctgcaa gccttatatt tcaactgttg tgtattaaat 420
 gactttgctg gatcaaatga aactcgnnna ngctaaatcc ttctgcagtc tgaaagacnc 480
 atgatgcagc attcgnttn ctgntgnatg aatgnggant cattttggac cntnngcttt 540
 gacaggc 547

<210> 1296

<211> 549

<212> DNA

<213> Ctenocephalides felis

0991036-112101

<400> 1296

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attntaatta accataactt attggttatgt taaatcttta aataaatctt atttaattat 60
atztatcaat tattttataag aaacaatttt aaaacattcc ttcattatta taactgggat 120
gaccggaatg aaaatgttag cacctacttt gcatttttca catgataact agcaatcttg 180
tgaggaattg tattaggcct cagtaaccca tgaagcgccc ttttgtaaca caataataat 240
gattcatcct tttctactgg ttctagataa gcttgcagag gataacacaa cttttcttca 300
gggcaattta aaactcttaa taatccagaa tggtctgacc aaatttgctt tctccaacaa 360
atgtcgtggc aatgtgctaa cggaactagt acacaagctg aaaacatttc atccccataa 420
ctaacagctt gataatgtcc agaagttttg tatatagatc agtaaaactg cttagacctt 480
gtatggttgg taaagcaaac ggtgagtagg ccaatttgaa attcttcgaa atgctttagc 540
aacagaggt 549
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<210> 1297

<211> 464

<212> DNA

<213> Ctenocephalides felis

<400> 1297

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tgnaacacca cattagcaaa ttcacgaata ttngagttgt ggacaaacta ttaagaaaat 60
aatgattaat tattttttatc aagattcttt aatttgatac taaaatgttt tgctccacaa 120
aatgactaaa tatactttta aaaaacaact gactagaata tattgaaatt tacattcgga 180
tatattttaa tacttactag accacaaaaa tatttgtcaa agtttgtcaa aaatattttg 240
tatatatattt cttgaatatc gacagtatac acgctggatt tgtgctgcct ggtagatttt 300
ttcttgaaaa ggtgatatta ctctatgat ttgtatttat atgaaagtgc tttatattat 360
tttaatgatt ataaataata gtatgtatgg gatattatat aattgtgtat atcgatataa 420
ttgttgccctc aataaaaaat attttttaaa aaaaaaaaaa aaaa 464
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<210> 1298

<211> 547

<212> DNA

<213> Ctenocephalides felis

<400> 1298

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agaataaata aacaataaat tctttgataa atatagtatt tagctttagt atccacgtgt 120
cactaataat tttaaatgc gcatgagtc gaaactgata aaaggatgcg gtataaacia 180
aattccttca gtcacgcggt aacaattgtc agaataacac tttaatctca ttttttgatg 240
tgaattactt tgtaattaat cgcgtattct acaaatcacg atgaaagtta aggacttgac 300
attcattaga gaaagactta cattcccat agttttatta tggcttatcg catttcctgt 360
togagctatc gaaccaaag aaattctttt tatcatcctg agtcaaccaa atacttatag 420
ttcaagttaa gctgaaagtc tgcgaaagga tattttaaga caagccatcg atctgaataa 480
gacgccgcaa taatccacct ttcacacctg gattatccgc agcatcttca tggccgtctc 540
cttattg 547
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<210> 1299

<211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1299
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 atgaaacggg tgtgaaaggg gcagacttaa atggaaagaa caaaggccct gaatgcactg 120
 tttttactat aagttagtaa aaaacgagtg aagtaaggct acctgtttat ggccaaatca 180
 aattaagata gaagaccaag agtcttttgc actttggagt tacttgtggt gttcagcatc 240
 tgggtggactg atttggccat ttgcagggcg ctgagccgag agataaaata aaaaatgtgt 300
 gactgcaatg ataaatgttt atcaataact tatccagaaa gattatttag gatctttatt 360
 gctgcaaaact ttttcaaaag cgaaagaaac tctggaaaat cattgctaatt ttatctctgt 420
 gatataataa attattattc aataattatg cttgtagttt tttcttataa atatgaatta 480
 gataattaat aaatataagt aactgtagta ttattaaagt cttntttatt agcaaaaaaa 540
 aaaaaaaa 549

<210> 1300
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1300
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 atacatgtct agcgaatcgc caataaggca gggatttgag ggacgaatca cgttcatcaa 120
 tcttggcgat cctaattcat cagttaacct gcactcatca attggaatga tatcatttat 180
 attctttatt gtcttcaaac atttttgtac cttgtaataa aaacatgtat atttagatta 240
 agcaacaaaa tgtaaatcta tttttgtcac aaaagacatt aaccagtaat taatatgaat 300
 atttaaatat ttttattagt actccaaatt ataaatttgt gacttgaagg tttaaaagta 360
 aaacaagaac tttgtgtgtg atcaatcact ttattaagaa aatatttgtt tttttgttgt 420
 catatggtgc tcgctatatt gtaatcaata tgtatttatt gattagtata tttatcactt 480
 atttgtgcta attattgatc ttatgatata tataatagaa atgaaaatgg ttcacaaatc 540
 tcattaatt 549

<210> 1301
 <211> 320
 <212> DNA
 <213> Ctenocephalides felis

<400> 1301
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 tttaataagc ggccttaca taaatagcgc caaattcaca tgtctcacgg atggcgtgaa 120
 aaaggaaaca tcttgtgcag cagattcatg ttttctttta tacaataaat ataaagggtgt 180
 gcgggagtat ggttgcataa taaaaatgac gcagagccaa agaaaatact gnttccgtca 240
 tccagaatta tgctttanct nccacccgga aaaacctgta attcaatgaa actgatgaaa 300
 cntngccgcg aatgcctcac 320

<210> 1302
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1302
 actgggaaga caatcaatca aaattcataa aaaagttata aaaagttaga aaaatgggta 60
 caaaagtagc actgttagtt cttgctgttg ctgtcgccca agtttcctgc gatggattaa 120
 catggaagta ccatccatct ctttcagcat ttatgctgaa aggtaaagac gaaatgggta 180
 aagattgttc agctcctgga gaaataaagt gccaggattg tgagacagca aacctttgca 240
 ttgcgattgg tgctgatttc ttagaaacaa cattggaaac atgtccgagt ggaatgactt 300
 gcaaaccagg tacaggttgc gtttaggcct ctgaaaatac attaaactgt cctgatcaaa 360
 ctctcccggt agacaacagt tttgtatgcg aatctattgg tattttccct gatctggaag 420
 actgtaagaa attccatttc tgtttccaaa tacagaaggt gttaaagctt ccacagaagc 480
 tttacctcat tctgaaatta aaatatgtcc atagaagcaa tcaaaagtca gaccagagtt 540
 gcaaaaacaa 549

<210> 1303
 <211> 417
 <212> DNA
 <213> Ctenocephalides felis

<400> 1303
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 ataaataata ttttactact atgaaaagag cgcacaaaaa ccttctacta gaccgtctgc 120
 acaaaggcgc cgtcatggcc tgcatgggca tcaccgtttt gggaacactc agtcttggat 180
 tccgagttta tcaatacttt actgatataa aacctgaaat acaaagaaaa caaatattgg 240
 caaagaacga gctgttaaaa gaaggagcct cggacatatc attatacgag agcaatatca 300
 cgttaaagga ataactccta ggatagtaga tatatttagt actgattact ccaaaaatgt 360
 atgttatata atgtaaataa gacttataat ttatttcaaa aaaaaaaaaa aaaaaaa 417

<210> 1304
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1304
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 gattaacaga ggaaaagcta cgtgttttag taaaacaatg taacaaatgc ccgaaatgta 180
 atgaaatttg tctagaggat tttcccgttg ttcaatgtag tttgaaccac agactttgca 240
 agacgtgctt tttggcttcc ataaatgatc cttgcttcca gtgcactaag ggagcaaac 300
 catccgctaa taaaaaagat cggccaaagc agccaaatgc cccagacaat tctttcccgga 360
 aggtaaactg caaatatgcc agtgacggat gcaaaatctc aaaaaagaag gacaaaatta 420
 gatttcacga atcggaatgt gtgtttcaac cacaagaatg tctggaaaat tcaactgttta 480

tttaattgta ctggccggta tttcaacgca tgctaccttt gtgagaacat cattaaatgg 540
aacacatga 549

<210> 1305

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1305

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tatattgcaa aaaaccaggt gtagaacaca tgtaatacta gaagaatggt taaaatgcag 120
gtgaccattt caaaggaatt tgaatatgat aaaatatgca tagatggaac tcatgggtaca 180
aatgcttatg gattttaccct gcatactctt cttgtaattc atggggcagg ttatcaggta 240
gaattttgtt tcacaaatcg gcaagatgaa actttattta aattattttt tgagaaaaatt 300
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aagcagacaa acgttttcac atcttattaa gaatcgagtg agatgatttt tggctaagtn 540
aatcttatt 549

<210> 1306

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1306

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acatatctag tgcacttcag caacttgaga gcatcaagac agcaatagat gactcccatg 180
atccaaaact tcagctcagt actaatgaag atttgatgat gataataagc ctattgcaag 240
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gtcangggaa cattacattc atgaagggat caatntngca atgaggcaac cntgatggat 540
attccaca 549

<210> 1307

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1307

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aaaataacta atttgctatg aaactaatag taaacaaaaa agttttttat gccggcatta 120

0991936-112101

aaccagacaa atttttgtga aattgaatta tttattttatt ttaaacaatt aaacttaata 180
 aaaataattt cttttttttt aaataattgg atgaataaaa aacttttttcg tttactgtta 240
 tatctgtcgc catctgaaat actattgctt taggtgtata taaatatcta tttacatatt 300
 ttgcaggtat ctgattaata ctaatttttg aatcactggg ttatttataaa aatatttcac 360
 attttttaggt tctaacagca cnacactttg ctacatttat tagtaaatgt tattaattaa 420
 ttatgtataa tactttgatt tcaactaaaa ttttgacgca aattgaaatg tgcttaagtt 480
 tacaagcagt ggccggacgt tggcacccat cctgacttgg ggaggaagac atttgtgtaca 540
 nctcatgag 549

<210> 1308

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1308

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 taggggctgc acaagccttt ttcgaacaag atgccgtctt agataagatg gtagatgaca 120
 tctctgtcga atatgagaac agcattgcaa gaattagcca agatagcaaa attgatatga 180
 ttgccgctga attcgaaaaa caaggatttg cccctgaagt cgatagagat ttggagaggt 240
 tcaacaaaga agttgaaaag aaacttagca aaaaagttag tgaagccgca aaggaatgcc 300
 ttaaaggcca acaccaaaaa gctctaggct acgcacaaga agcccgtgct aaggtcaagg 360
 cttgcagaga tgacaaacgt gatgaattca accaagttcg caaaatggct tgccgctgga 420
 gagaagccag ggagaacgcc gaagccctca gagcacaagc caaggagtgc gttgtgaccg 480
 cagccgtgtc gatgaagcca gagtttgctt gaaagggggt ctccaagctg cccgaagagc 540
 aaagacttg 549

<210> 1309

<211> 445

<212> DNA

<213> Ctenocephalides felis

<400> 1309

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 tcaatataaa aatagagatt tttcaaaaaa gattagatta ctatcgtaaa agagcattat 120
 tttctatgca attagttcat gatctaaca tatcagatga caagaactta gaaaatttgt 180
 ttcttcaatc tcgcttatta tatttgcaag gcaataacaa atctcatgaa gaacttatta 240
 agtttattag atctccaagc aaagatgcat attttgctaa tggaactagt atattaaaag 300
 gatccaacaa tgaaaatctt gccatattag ctcttaataa cattggagtt attgaatttt 360
 ctcttggtca ctttcatcta gcaactcatt cacttcaaca gtcattaagt agagatatct 420
 aactggtaaa aaaaaaaaaa aaaaa 445

<210> 1310

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1310

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agaaacgtta ttttatgtcg atttcttttag atgacaaagg aggtaaccaa atagcatatc 180
ttacaaaatc tgaggacaat aataaggatc gtttagcaag tcggttgaga agcggatcga 240
gaatgattgt ttgaatataa gtcgtacaaa attggaatga aacgatgaac aatatacaga 300
tcttttagaca ggctcaaata atgtatgttt aggagcaact tgaagataat ggagatttat 360
cttcttaata taaaacctct aaaattggga acagtatgtc atatatgcat gaacttgatt 420
gatgtattga tgtataatga actgaagata gaatgaattc aatcaggtta aaaaaaatgt 480
tggaacaaagc gattcgattt agatttgctc ctgatataaa acttccagaa gtcacatcat 540
atgaatatc
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<210> 1311

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1311

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gccactata tatgatatca tacgaagtgt tgaaagagat ccacatgata gcgctggcaa 180
aaccagagaa tcacaagatt gcagtgtgaa ggtatttagac ttacaaaaga agttagaaaa 240
aattcgaagt caagttactc agctacctgg aattgattat aataaagagg aacaacttca 300
atatttagaa acacttagga aacaattaaa acttaagcaa gagcttttgc acaaatacag 360
gactatgtac acatttgatt caatgaaaat ataaattgtt taaaatgcct ctgcatctc 420
tcatgaatta tttgctgaat aacgacgttt agttcagaag ttgctgaatc ttatccagtc 480
gaagagctgg cagtttagcca tttcgctatg atagatcaaa atcaatttag ggacacactg 540
agaagctgg
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<210> 1312

<211> 423

<212> DNA

<213> Ctenocephalides felis

<400> 1312

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ttttgaatga aacattagta attttgttgt ttaaagtctc acctattaca gtaataactt 180
gtatgtatgt tctaaacctt tttaaaattt agaaatgtaa cgagttatgt ggatatttgt 240
gatctatgct gaatgatact atttagtgga caaaattgca gttctgcatt aaccttttgg 300
tgagaatctt gcaatccaat attgtgtagt tttagtttat aatgtacata taagcaacct 360
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aaa
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<210> 1313
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1313
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 tgaacttaat aacttctgga attataatca tttataaagg tggactcatt tatttgaagc 180
 tctatgtaaa atcctgctct gattagtata actactgcat ttcagaatgg aaaatgggtgc 240
 taagaagctt gatataaaca agtataagct ggatgtgtca gatttagcaa agcaaaacta 300
 ccgacaaata attgaaaata aatatagcag tagtattcca aataaccaag aggtgcaaaa 360
 ctcatcaaat gcgggttcct tgatgtcttt gacaacaata tctatgtcat cttcagacaa 420
 tagttatcaa ttatctcaaa attgcgaaaa agagctagtg caagaaaatt ggatatatac 480
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 ctcgccaca 549

<210> 1314
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1314
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 tgggtggaatc aactgtccag atttcaacga agtctatttt atatgatagt attagttcta 180
 ttttttacac tcttatattt attaccaagt caacataatg gagatggaaa aactatagag 240
 catatacaaa taacaccaat tgaagcaaat aacttaccat ttttacaaaa tgatcaagtg 300
 gtatcaccta ttaattttaa tcaaaattca gaaactaatg gcttagattt agaaaaatca 360
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 ttaaaaagta gtcttgggac tagtcatggc aaagtttttg tggccaaaaa cagaaagaca 480
 gaaagcagtg tgaagccttc aagctgcttg gaagggctta aaacattgct ggggcacgcc 540
 attaaccat 549

<210> 1315
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1315
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 agtagagtca aatcgatata taatattatt ttacctactt ctctggaata caaatttatt 180
 aataaatatc gatttcagtt acaagctgat cagtagtata ttttctgtgg tcaaggattg 240
 tcatcatgtc aactaaaata atattattat ccgcattgct gttgctaata tcttccactg 300
 ccgtccaggc ccaagtatgc agttgtgtat gcatcacaat atgctgcacc cccgaacagc 360

tttcaaccct cgctgtccc caagcgcagc agcagcagac ggctgactg tccaaactca 420
ccctcctaaa aataatgctg atgcttacct cgaatacata caggcacaaa atattttaaa 480
tcagtactta catcaacagc agtgcgacaa tccaaaaagt naggaacaaa aattcttggc 540
acagcagca 549

<210> 1316

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1316

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tggcttgtgg ttgcctatgt cgtttaccta tcccccttgt gcaaaccocg ggttgtggga 180
atgtgtaaga aaattagtaa aatgctcgga acgataaaaa ttgtgcaagt gaaaaatatg 240
ttgattaatg ttttaattatt actgtgaggt gaaattgata attctgtatg aatttataat 300
taacggattt caatatggaa gtgactgata gtgatacgaa ttccagcaat tataaggaga 360
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aggacgagga tgagctctac cttcaacttc atcttcatgt aaatctgcca actaaagcct 480
cacttgattc agcatgctca agtatccagc agtcctcaac gttgaaatag gacttccgtc 540
ccgaatgct 549

<210> 1317

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1317

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ggccaagatg gacaaccttt gccaaagtgg gaagaattat taaaaatgtt agaagggaatg 180
gacatgtccg aggaagacaa acagagcctg agggattctt tgcttcaaca ggcaaatagg 240
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ttggccatgg tggcgattat agtatcagtt ttcgcatttt ttgcaaataa attatacaaa 360
tctctgacgt acaaagacag aatgcgtgaa gaaaaaagga aagccaagga ggagagaaaag 420
aacaaggaaa agaagaaagt caagtagtca ttttgaaaac gacaagactt ttaaatccat 480
aattattata cttacccata gttcagtcag tcagatcaaa acagtntgat attaaaataa 540
ttttccgta 549

<210> 1318

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1318

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ccctgcacca gccgtatgca gcccgggacc agggcaaact tggcatgcaa accaggattc 180
cagttgctca aagaaccaga gttctcgcaa attaattgcg gaaatgatgg gatttgggat 240
aattgtttgt tttcttgca accagaatgt ggaaatccaa caccaattga aactgttttt 300
aatcggacc cacctgtaac gtacttagca ggtcaatata catggtatgc aatgttgttt 360
acccgaaggg aagatttatt caaaggacaa tttctattca gttgtggggg gtcaataatc 420
aactcacgaa tgatagttac aactgcttat gcgctcataa gccagaaatc gattggatga 480
tcagagagtg tgtggatcta gtgtattcgt ttaataaaca gagatnttat gctagcntac 540
gaatagaaa 549

<210> 1319

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1319

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atcattgaag tattgcgaa aaattatcaa cataaaaagc gaatagaaaag agaaactgac 180
gaaagtatca taattgcgaa agaacatgca actaagctgc acgaatcacc agctgttggc 240
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gtattccaga aaagaataaa gacttttatg tggatcagag aaagcagctc ttagatcatg 480
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gaagaaacg 549

<210> 1320

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1320

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tagtgaaaaa aacatctaag tgaaatcaga aaacaacaac aggaataaca ttttgaatca 180
gtaaaaataa cggatgacac ttcaagggtg cccagatgaa aggggtgacaa ccccggtgcc 240
gccgtctccg cccccgattc cgctgcagac ttatcttttg gaggacgtta gaagggaacg 300
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tggttcaggaa ctagaagagt ctccgagtgt cactagaaga agaagagcgg atccgtggag 480
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agaagacaa 549

<210> 1321
 <211> 384
 <212> DNA
 <213> Ctenocephalides felis

<400> 1321
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 gggttcagtgc aggtgaacga tgttatttat ttaataaag ttgcaatgaa tgacgttaaa 180
 ggacttgtgg aaagaaacta ctacttataa ttagtgaata ttatttatta ggacgaagta 240
 gtttttattg tctccctaata ttatctttgc gagtttagtt aattcaaaat atatgatttt 300
 agaattattt gttacttaaa aaaacatgaa agaaatctgt atttgaataa aaagatacac 360
 aaacatcaaa aaaaaaaaaa aaaa 384

<210> 1322
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1322
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 ctattaccaa caattctttg gaagaattgt acacaaacac ttctgccaaa acagattcca 180
 ttactctttt atcaaaaacc agtctaccgc ctgatcaaaa tgccacgatt gaaaatcctg 240
 atccagtgtc tcctgaaaag ggctccgctg aacaagaaca acacagctcg atgtctatat 300
 tcttcgtgct ttgtgtgctg gctttaggga ttcttttaat tcatttcag ttacaaacag 360
 ggtttcagta tttacctgaa agtattgttg tagttttctt aggtgcttta atcggttga 420
 taattaattt aatgtcgtct aaaaatattg caaattggag aatgaagaac cttttcaccc 480
 acagcgtttt cttagtgtc tccgctataa tattgaatcc ggtatattgc ataaggnatt 540
 ttttcaaat 549

<210> 1323
 <211> 29
 <212> DNA
 <213> Ctenocephalides felis

<400> 1323
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<210> 1324
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1324


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agaatatttt atgtacttct gcaaacagtt tcctgggtgc tcctcagctt atattaagta 180
gtaaaatgca gtagatgagg tattgtgacc aaaattttaa aaaaatatat tgcctattta 240
ggcaatatga tatggtaccg gcaaagtgtg tttagtacat ttcaggtatt tttatataaa 300
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gaatggatac ttttgcggcc ttatgaacaa atgtgggaat tgcaagcaat aatacttcta 480
gagtagaaat tatgctctat ttttgtgnac acatcttaga ctattgagat ctagtagatt 540
gctgaatgag 550

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<210> 1325

<211> 491

<212> DNA

<213> Ctenocephalides felis

<400> 1325

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gagagcaaaa ctacttttagg atacattttt tgactaaatc atgtaataaa tttaccatgg 120
cccattggaa aatttttctg atactatcgt ggcgattaac gtgttaataa ttttatagtc 180
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tctcttccat atccgatctt ctttattctt attctcttct atatccgatt ttcttcttct 420
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gggcatttgt g 491

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<210> 1326

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1326

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tcgtaatgga ttcagaataa tgtaataaat gatctttatt tgatgagatt attaaaaatg 180
aatattacaa cattcacgca atcaagtaat ttagaatcaa tccaatcagc caattaacaa 240
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tatattttgt 550

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<210> 1327

<211> 550
 <212> DNA
 <213> Ctenocephalides felis

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 gtggtgccat 550

<210> 1328
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1328
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 gcaggccgag aaggagtaga gattaactag tgaaaaaatg atattaagag aacattaaat 120
 aatatcagac agtgattttt tccataaaac aatcgactaa tgatttgta ttctgaatta 180
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 tgnaagtaat 550

<210> 1329
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1329
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 atggnctaaa 550

<210> 1330
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1330
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 gntctttcta 550

<210> 1331
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1331
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 gaaattactt gatattgaca tcatgtcaca attttatttc agcattttca tttgcatcat 420
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<210> 1332
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1332
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 caagagtcaa aaggaatgac tttgaagggtg cgtcattgaa aacaaaatgc ctggtgcatt 420
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 ccataactcat 550

<210> 1333

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1333

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 atataaatat aaaattgggt agatcactaa atcttcttat attttatcac ccattgggtta 480
 tgcatctgct gcaatggaaa tagcttcgaa gctncgttgt tgaatataaa aaaggatcat 540
 tcacaaatcc 550

<210> 1334

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1334

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 ctttcccttt ctgtcaatta taaatctcgt gacaaaocca taatagagga agctattgaa 360
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 attctcgcta taattggtt gatttaattg acgatgctt atccgtggca gtgaccacag 480
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<210> 1335

<211> 466
 <212> DNA
 <213> Ctenocephalides felis

<400> 1335
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 aacatgtttt taaggccagt ggagaaccag ataaaaaaga tgactagatt aataatccca 180
 ttcattttta ttttagattt ttggaattt ttgattcat ttattctcac atatgtttta 240
 attttgttta attattatta caaagtacat attcaaacad atttaactgt taaaccatac 300
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<210> 1336
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1336
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 gaagtgttga aacatgcaaa acgcttgggg tttggggaag atgatgtatc agccttgat 180
 ttcagagcac gtttttaaat ataaatttat atatggtttt ataatatata aaattttaga 240
 ctaatttata tatttcacac acagaagcat ataatttata aatttatttg tttataatta 300
 ttgactaagc taaaattttg tacttttggg aaattatttc tattaggaga atgtagtta 360
 gttcacgtgt tggataattt gtgtttttaa tgttttacat gtaggtgcaa tgacatgtat 420
 tgaagaatag taattttaa ttctgtcata attttacaat aagtaaagt tagttattga 480
 tagatgctat gttgcatact atatggagt nactcatttt atttagttac aaaaatttac 540
 cgtatgaatt 550

<210> 1337
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1337
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 ggtgcttccg gattgataaa ggacaattct ctgaaagttt tagctctctt aatgggaccg 180
 gccgtggtcc cgtggtaaga acgtgggcta gcaaactcta gtcccgggtt cgaatccaac 240
 ctgggtcggg tgggtatcaa aacagcttga taccaaattt tcaattgaaa tcatagattt 300
 caaatatgat ttcaagtga aatggccttt cgtgggcaaa gctgtagtgg caacacgcca 360
 cttggaagta aagagggtact aagatggat cgctttgaaa tcaaaaagga agtcgaattt 420
 gtatctctat acaacagaaa aatgtaaagg ctctgacatc gtgcaccatg attgagtga 480
 tttcaactca ccacggcct gccctggaga atattcgtaa agaaaatgta taacagtaaa 540

atatgtaaga

550

<210> 1338

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1338

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agtgccttac aggatataag gataatttca agcagatatt ttgtgtgaaa gttgtgcttt 120
tcaaattcaa gaacatttta gtaataaatt aaactaataa aaaagttgct aatatctact 180
tcggttttac tgcaatttct tggatgctac aaaatgaatt ctaaaatatt gtgtttcatt 240
atattttcca ctttttttct ggctaaaagt caacaaataa attactacgg caactcaaga 300
ctaataaatc ctggcccata caattaccag tatcctcctt taccaccaag gttgccgcca 360
attaattgtg aaccagtata tgccacagtt gatttctcat acttaagatt catgctggat 420
aaacttggtt caaagtagtt cctaaggata tcgtgaatcc tcaaaacttc ggncaattgt 480
gcaagcttcc anaggcgggt tgattcagga agtgctaata tagtgaagac gacagatagg 540
tttctggga 549

<210> 1339

<211> 413

<212> DNA

<213> Ctenocephalides felis

<400> 1339

caatgattga ctgctatctg atactagtga actaaaatat gttcaagtgc ttattctata 60
aactatcaat ttattcaaag aaaaatcact ttgaacataa attgcaactt attgtgcgaa 120
tcattggtga tatattgttt tccaggcatt aataactatt tgattaaata aataattaga 180
aatgttatga attgtaattt gctctttact attattattt gtaaatttgt gatgcattta 240
aaaattttaa aatattcatt tgttgaataa tatttgaaat gttttatgtt ggaccattgc 300
aaagtgaagca aactcaaaaa tgtattaatt tttttttttt gtatatgtac tgccaataga 360
aacaattttt tatttaaata aaggcacctt gaattaaaaa aaaaaaaaaa aaa 413

<210> 1340

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1340

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atittgagag ttttcattaa ttgtgtgatg tagaggtgaa aagtataaaa aaggcatgta 120
ttaatcaatg aagcatattt aattttaaca attcattttg ccaaatatga cttttaatta 180
aaatttatat gattaatatt attttaaaaa tcaatacaat ttcaactgct tattcagatt 240
tacatgcaat atgtttcatt taattttatt taatatatta atagtccagt tgaatcaatg 300
ggaaggcaaa tactacatca tgtaattgtt gaataactct ctatgtactt ttagaatgat 360

00001936-112101

atggattgaa cgaatgtatg aatgagagtt aaaacaatca tattataaaa ccaattttaa 420
tcaaaaacagt catgaacctc atattatgcg aaaaactgcc aaaaggtttt ttttaagttgt 480
tgagactggc cttgtgacat ttcaaaatga tatttgagta taattttata ttatgagtct 540
tccaaaatt 549

<210> 1341

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1341

cgaaaccaac tgaagacgtc acaaactggt caataaaagc ttattaattt ctcgataaat 60
gctattttat caagcgtttc cttgtttaat acaaaattat agtgattatg gatcgatttc 120
ctaaatctct tgaaaatgca attatcgaag cgaaaaggcg ctttgaagaa caaagtgcctt 180
tgacgtcaga gttaggacca gcaatatttg acaccctga tgctgctcca tttgctctac 240
caagagcata tgtaacaggt ccatgtttta gctctgacga aagttcaaac aatagtagaa 300
cttctgaatc agcagttggt gctgtcagtc accatacacc gaatgcatta acatcatttt 360
taaatgatcg ttatttatat ggtcacaaaa aatcaaggaa atgttatagt attcaatcat 420
tttcaattcg atgactttga aaatcgcgat ggacacatga agatgtagaa gaattgaaaa 480
tcttttgga taaggtagga tcaagngaag ttatgatgac ttacaggtcg caatactgna 540
gtgtcatng 549

<210> 1342

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1342

aattaatggt cctttcgtac taattaattt taaaaaatta aggatagaaa ccaacctggc 60
ttaaacgggt ttgaactcag atcatgtaag aattaatggt cgaacagacc aaatttttaa 120
acttctgcat tttaaaatta tcttaatcca acatcgaggt cgcaatctat tttgtcgata 180
tgttctctta aaaataatta cgctgttatt ccttaagtaa cttaatcttt taatcataat 240
ttatggatca attattcaat tatttatggt ttaataaaaa aaaagtttta taaattttcc 300
tatcacccca ataaaatata ttaatatata taaatttaat aatattctta aaattaatct 360
atatttatat ataaaacttt aaagggtctt ctcgccttta ataataatata cgctttttta 420
cataaaaaatt aaattctata caattttatt aagacagtaa tatttcattc aatcattcat 480
tccagctttc aattaaaaaa ctatgnntat gctcctttga cagcaataac tgcggctttt 540
aatctcatg 549

<210> 1343

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1343

aataaactta ataacagacg tttattcaaa gattaaaatg cgtataacta atttacaatt 60
aatgatgtgt ttgatcaatt aaattaaaaat ttttgggctt ttgcagatta ttagcctatg 120
aaaaataact tttgatagtg acgtatactg cacaaataac tctaaatttc ttgtaaatat 180
tcttgacaag atggaaatgg aaacagatgc taaaaaggac aataaaaaaca tggctcatgt 240
tatgctaaat gaagtcactg atatgctaga agatgatttg cagccgatcg aacaatatga 300
ttacattgcc ttagatgaat tgcaaccaat ggaacaaggc cttgaacaat atcaagaaac 360
aatggaaagt gaagaaaatc aaagtgaaga acagttgcaa cagcaggaac ctgaagttga 420
agaagtttag tgccagaaat agaggaaaaa ccaattttgt caaactgtcc tctgtagaac 480
aatagctcca acctgagtct caaattaatt ggggggctca ggcagccaat tgtttatcaa 540
ggcctattc 549

<210> 1344

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1344

atcacataga tcaataggaa tttatccata tcttagagtt ttgaaggat ctgattatgc 60
tgacattggt ctaagagaag ctgtagaat tgccgaaggc tctgaaactt acagtccaac 120
agtaaatcaa ttatatagag atttaggcatt aagagtacaa tccaggatc atattgaagt 180
caaacaaaca aatgggtgtc tggaaaaagt aaatgaaata tatgatcaat attgtttaca 240
aataagtga acttataaaa aactgcaaga tattaattat ttatctgaag agctggattc 300
attagataag ttaagtgtt ttaacacaag gcagaaatgg caactgctgg ttcattcaaga 360
aaatcatgga gcaagcacag atttagaaga agtaaatgct cttattcagt gtgctagctg 420
tggaaaattt tgtacaatat attgatgcgt gatttaaaaa tagatgtaaa ttctatgaag 480
atgatagtaa acaaaagaan tgcttcngat tttacactta ttagaaatca aggaaattgt 540
aaagaagag 549

<210> 1345

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1345

cagcgatcag atttaccaga cacatctcat tggcaaagtt caatttccaa agatgaagct 60
gontttgaaa tagactactg caatcctcaa tcaagcaatc aacattcgaa gncaactaaa 120
gataataaca atgacgggtac tactgntcca gacgaagatt ttttttcgct cattatgaaa 180
atacaaagtg gaaggatgga tgaccagcga gcaagtataa atataaaacg agtaatatag 240
aactctactt taataattgt aataatattg tatatggatt attagattac ttttaatact 300
agaatatttc caatttttta atatcatttt ttgtggatta catacataga atagtctggc 360
tatcgattgg tactttgact atgaattgtt gtacctttga accgcaacaa tttctaatat 420
aaaatgagta gaaggtttat tagcgacata atagtacat tgctataata tagcatttaa 480
atcaaacaaa ttaaaaatgt gattttatta ataggtacta tcataaagtc acaaaagccc 540
ttccgggtac 549

<210> 1346
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1346
 gtggattagt atatcaacct ctatcagaag aaatcagatg tccaccaacg ccaatagtga 60
 cacgctatcc aagctatttg agcagtcctg tccatcatga aaaaattacc cccgaacaag 120
 tgtagcttta aaatatttaa ttctgtcgca aaatttgctt ggtagtctc catcgtaa 180
 tgatttgcaa ataacaatat aggaatttta acagcagcgc tgttgtaca aactgtagtc 240
 aaagagaaca aacctttagg atcagaatta atttatgtta ctttggtta tacattcctc 300
 gatcaattta cttaagtaaa atagtacact gtggatactt caatgagata ttgtcatatg 360
 taacggcatg ggtaataaat aatttagttg ttataactgt ctacttaaaa taaaattggg 420
 taaatatgac ttataatta aacatattta accacaggaa attagtataa ttagtaatga 480
 ttttaacatt acattgcttg aagaagtat gccagctcat gataatatct tattgtagtt 540
 tatgataag 549

<210> 1347
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1347
 gcaaaatatg atcaatactg tatattttaac atacacgcgc acatatgcat atatatatgt 60
 atatatatat atatatatat atatacttat atgcatataa agcaatatca acatctat 120
 agttttcgat attctgcaaa taataatgat cttaaattac aaatagaata ttacatttaa 180
 cagctaagaa tttgcagttt cacaaatact gccagtcacc aaatgggtatt cagaatatca 240
 ttcaaaacaa tttagccaat aatgtaagat gaaatacaga tgattataga aacattcaga 300
 atttatacac tataaatatg aacattaata ctatgtacca cttaaaatgt gaaatctgaa 360
 tacgtcattt gatgactgcg tgtaacaaga acttggtata gattataaca attataattt 420
 aatatatctt tttcattttg taaccccaaa agagcattcc tcgcgtcttg cacgacttgn 480
 ggggtgtggg agtgtgatga tgatcatgta gatgggtgac cttatatcac gggtgggtga 540
 cgagattat 549

<210> 1348
 <211> 377
 <212> DNA
 <213> Ctenocephalides felis

<400> 1348
 attttatgtg ccagtgtctc taataaatag ttaatattag ttcatatttt agaatcaatt 60
 taagtttact tgtaaaatag atgcagtata taatataaat aggggtgtgc attttaaagt 120
 ttgcattgta aaaccaaata cttctcatat tctgatgcaa atacttcaat aatttggtat 180
 tgttgcaata agcaccocaa actgttgtaa atgaagttgc atgatgtgtt aaaaatatca 240
 acgaatatcc aacaacataa gtcaagaatg aaatgtaatt tctgtatata taggtctgca 300
 tatgatttgt ttgttacgat gtgaaatttc aataaattgt tgacttcgtt gaaaaaaaaa 360

<210> 1349
 <211> 349
 <212> DNA
 <213> Ctenocephalides felis

<400> 1349
 cattcggttt tcacaaataa tacaaaaacc agattattaa aatgattgga gtccgcgccca 60
 tcacaaagtc gtccccagtg gtcagaactc ttttgcaaca gaccaggaac ttcaatgatg 120
 cttatccagt agtatcaggg cccccaagga ctaagatttc tactgctgag aaaattgtcc 180
 atggagccgt catcacagtc ggttgcttgg ccatccccgc ttgggtgctc ctccatttgc 240
 aagaatacaa aggagaacaa taaacaatga aaattccttag taaatgtgtg ataagtgtaa 300
 atttaactaa atacaaagga ataaagttaa aaaaaaaaaa aaaaaaaaaa 349

<210> 1350
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1350
 cttcaaacct ttaatgtttt gaaacacaaa ctgttcataa tcaattgtag ttttgtgata 60
 aaactcaata tgatcgtata aacctgtgta cctagaaaaa acagaggagc agggagggag 120
 tggacatttt attctggatt tccttgatgg tgtacctata aaattttcct tagtactgat 180
 tggggaactg ggaatgggag gcgtgtgaat ttgaacttta gtagagggaag tacaaggatg 240
 tggcgataaa cttacgtggg aatgtttgtg aagacgatct gatatggaag gagcagaggt 300
 aaaagatgag caagcagaaa gtggatatct tagtttctct tttgttgatg gtgtacctgt 360
 aaaattttcc ttagtactga ttggggaact ggggaatggga ggcgtgtgaa tttgaacttt 420
 agtagaggaa gtcaaggatg tggcgataaa cttacgtggg aatgttgtga agacgatctg 480
 tatggaagga gcagagtaaa agatagcagc agaagtggat atctagtctt ctttgtgtgn 540
 gtcctgtaa 549

<210> 1351
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1351
 atatgaagaa aaatcctaata aatccagtat taggatgcaa aacaagaaca catttatoga 60
 agactgccaa agtattttggt gatgaacagt cagattcttt aaatttttaa tcattgcttt 120
 ctagctgtcc tgaatttgca tctaaaccca aagctgcaaa caagcagtag tcacaaaaag 180
 tatttaaaca agttagatgc aaatctaaaa ccttagaaaa tcaattagaa gttcatcgta 240
 gtttaatggt aaaaatcaacc gaagtgcata gttcttgctc tcagcaagcc agaatgaatg 300
 aacctgtgta tataacaatt gatgaattag catcatattt tgagactttt gttcacatac 360
 ccaaaaagat gtcttcgatg gcagaaatga tgtatattta atgatatttt tttcatattt 420

gtaaattggtt acttataagt tctctatatt tatgtaaatg aattagtgtg atattgataa 480
 agtccattag ttcattgtttt gatacatata aatcaaatag atatacatca tctaagctta 540
 ataataagag 549

<210> 1352
 <211> 363
 <212> DNA
 <213> Ctenocephalides felis

<400> 1352
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 ttaccaggat acgaggacaa ggtcactgct gaagaactgg aggaatatac caatgaacac 120
 gttcacgacc acgaaaaact cggaggaggc cttacatag tgcaggagct gcccgacta 180
 acaaatggca aaaaagataa accaacagtc cgaaaaatgg caaaagaaat gtctcaacag 240
 atctatgaaa aatacgacaa ctgcactaga aaataaaaga caaaacacct ttgttaaaat 300
 agtttgaat gtagatttat gataaataaa attgataaaa attaaaaaaa aaaaaaaaaa 360
 aaa 363

<210> 1353
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1353
 aaaatggctg actccggggg tgaaaaagga attatagctg ataataaagc tgggtgccgcc 60
 cctaccggtg atgccttaag acacagtcga ccttcacccg ttaataaagg ccgtaggcga 120
 gtcaggccca tgtcgatgga tgctacgccg atcaacgcgc acacgatgca ctggttcgcc 180
 tatctcgccc cggaaccagt cgcgagcag caggcccaat tgtcggccga acaacagggc 240
 cagcctgacg ctgcggcctc tgccgatggc caattgtcgg atggagagaa cgaagatgtt 300
 agacgttcaa cgaacttcga tgccgaaaac aacgaccag gtggtgcttc ggcggccggg 360
 tctgcgacc gtcccgcgac ggacgagcga ctgcggcacg ttgcgcgacag gcagcaggaa 420
 gaacgccagc gtcggctcga ggagctgagg cccaacgttg gccggcagag gttagggaa 480
 agaagaggaa gagaggagga aacggatcga ggagatcngc tgaggatatg acagcgctct 540
 agtcgaaga 549

<210> 1354
 <211> 384
 <212> DNA
 <213> Ctenocephalides felis

<400> 1354
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 aaaattaaac gatatgctta attagttcag aacctaaaa atatacataa caactttaat 120
 ataaattaat gtaatcacat cattatgctt tatagtaaat attttaaatg ttataaatta 180
 tatattttga aaacatagtt attctatgca aattacgcaa atatgaacaa atttttatca 240

acataatatt atttatgata taatagtaat gtccgaattt aaaatatacg ttctcgtatg 300
 aaaatattat acaaatacaa caatgcctat tcgaagcgaa atatctaatt aagaaattta 360
 tttaaattat aaaactgcca aaaa 384

<210> 1355

<211> 288

<212> DNA

<213> Ctenocephalides felis

<400> 1355

gttaagcatg acccagagga attgaggaat ttggctggaa agccagatat aaagggttact 60
 aatgcataat aagaacttaa attagtaatg cagatatcaa attcattata ttgttatagg 120
 atacatttga agaactgaag aagagactac attccttgga gcaacaaaca aatgatccct 180
 ggcggttgtc tccacattct gtgcttatgg acaactcctg tataactgca gaatgtttgc 240
 cactatataa ttgaaattgg aacaaagctt aaaaaaaaaa aaaaaaaaaa 288

<210> 1356

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1356

acaagtctga gcaggtgcgt catttatggt aggtaatata aaatttatta tgatatgtta 60
 attttaaatt ttataaatcc tattcttttt taaatttatc aatgtataat aatacatttt 120
 tgtaattgct actgaaaatg attaatctcc acttcaattt caatttttac gtgattcggg 180
 agaggaatag ttacagtata aatataatca atggatttca agatatgaat ttagaaaaaa 240
 aatgttttaa ccagccccta gctctcctac cataaattta tttctaatat ataaagatgt 300
 atcagattaa caactcagtc tttccataat tcttccaaga tattataaca gcatgttgcc 360
 atgtctgatt tttttttcat taaaatattt aaaaaattag ttatctacgc gtgctccatg 420
 cgtcttacac gtccttcttg nagaaacaga ttatcattat atatatttat atcataataa 480
 taatogaatt tatagattta tcgtttttca gaaacttggt caggtgataa ncagactctg 540
 nctccctat 549

<210> 1357

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1357

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 ctactgattt gcggactttg ggagtgttac tgccgcccgc ctcaacagcc tagtccgcct 120
 ctggtagatc cttgtgcctc aatctctcct gataatcatg tggtagcaag taatttagaa 180
 aatattagtc cgcctctcta tgatgaattg gacactccac cagcttataa tatcttattt 240
 ccgccggaac aaaaaagtat acctgtagca acaaccagtg accaggggaac gagttctggg 300
 aatattccag tgtaaataa gattactatt agtttttatt ttgttttaatt gtgtatcaca 360

aaaaaacgag tttatggatc ttaagtctta ttaattgctg aactaaatga atgagatgcc 420
ctcctggtgc atctcagtga atgtgaagat gatgaactta aataatgacg cttgcttagg 480
ttcaggactg cttaactgtg attcttctnt cttattcang aagttaaact atcttgaaac 540
aacaagtaa 549

<210> 1358

<211> 497

<212> DNA

<213> Ctenocephalides felis

<400> 1358

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gtcgttaatg ggacatttaa cagatagcca gtaactgtca aatagtttat ttattaaatt 120
gacatttttt aattattgta tttttaaaca tgttataaag cacataacct atatgttata 180
gtatttttta tcgcggttaca tttacaatta tgtatactac aaaaatagag aaaaacatgt 240
gctctatttg tgagaagcaa tatgatcgtg attgggaaat tgaggaaatg caaacaata 300
ttgctcttga acctacagaa gaggaattct cgagacgtac aagttcccg tcaaacaacc 360
aaataagtac tattccacaa aacgaaagca atatgatgat tttagaaatg ttagccaaaa 420
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aagaaaagac aaaaaaa 497

<210> 1359

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1359

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aaattcattt ataaaaataat agggattatt tagtaaataa tttttaacaa tatttttaaa 120
ggtgaatctt gttttgcatc tccatccatc aggtagctta ttatagatct tggcacccaa 180
tgtagttctt agcgatgatt tgagtttgat ttttgacat atcgctgcat ttttattccg 240
cgtattgtgg tcgtggacat cacttctcaa taaatgatta gttttatccg catgcaccgc 300
aatagcttgt tgccaaatat aaatgtttgt gacagtcaaa attttgtgtt ttatgaatag 360
cggcctgcaa gactcccgag gtaagactcc ttctattgct ctaaccgctt cttttgtaga 420
tccataactt tagaagtggg gcactatata cccaagctaa tattccgcgg acgagtcact 480
attaaagaac gtgactcaa cgcaaaggcg aaaaccgntt naggcattggc ccctccggac 540
catccccta 549

<210> 1360

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1360

cataaaaata atatataatt caaagccctg ngttatgtaa tgcttataaa attottaaca 60

attatatgta tatatgtaca tctcttttcta actcaaacga ctactaatac tgctctctcg 120
ctctgttacc atagttgtac ggctgtgcag tcacaggtct caaatgagcc cttggaagac 180
cttgagcatc gtaatcaggc tgcggaataa ctggcatacg gcttccatac cgcgtagcag 240
gattatcgta atccgtcggt tgagtcggcg taggttttct tgcaaatctg gtgtttccta 300
cgactgcagg ttttggcaac actggtggtg gagttccgta tcctggtgaa tttggattgc 360
taactgggta attcaagttg gagccacggt cgtctggtga cttcggggcg agaattggagg 420
gtttaaggga gatggtttga ttgctcattt ggctcgatcg accagcgtag cattgtgttg 480
taaccttggt gacttgatat atatgctca aatgtntccg ataactctgt anggtagact 540
ctgtttctt 549

<210> 1361

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1361

ctgtgattat ttactatggt tgtcgtcgaa ttataaatc ataaaattat ttagttttat 60
agtgaattg aaatattcta aaaatgttga gtaattctga tttcttaaga agaccggata 120
gatctcatc aagatcatca agaagatat actgtgacga acgcgcctct aaacgacgaa 180
aggattcatt ttatgaatct tttatatctc atagaactat actagtagtt gaaaacaaag 240
aagagcctac atgcaaagtt tcaagatgcc gatggtctgg atttgatgat gaattattat 300
cgcattgtat acacaaacac aacgttttcg aatcaaata acaaaatata gtcgagtttc 360
agaattggca accaagtgat atctacaaag gagttctact taaatttcgc agtttgctgt 420
tgtggttatt catggaaaat gacggtctaa tattaatgta gtgncagaac gcagctgcga 480
tgtcacgagc tgtggattag gtcaatgtag ctangtcaaa agatgtcaag aatgccagaa 540
tctgtaaat 549

<210> 1362

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1362

atttaaaaca ttccatataa atgtagtttt ttagctattg tttttctgtg ataaattccc 60
aaaaaaggac atgacattat agtttgaaca agctgatttt atttataaaa tataatttat 120
tgtatatgga tgtgtgattg tgtaggtat tgcattggga aattttgttt ttaaataatct 180
tcaaaacagt ttgtggtaaa atatttaatt taggaaatat tggtatatca tgaatatgcc 240
aactgaagta aatcaaatat aaaggcactt tgtttagata tttaaatatt taaaatgttt 300
gttaaataata tatatttgtt atttaaatgg cctgcaatat tactgatatt gcctgttcaa 360
atctctaaat tctagtaata tatgtcacca ttcattgtgca tttattcaac gattgtttta 420
tgaagctctt tacagcttcg cttatagtta aaatatattag cctaacatta ttaatgatat 480
tatcacatta gaaatctgtg aaaatattgc tgntaaaatg tatgtgagtt taaattgcaa 540
tatccactc 549

<210> 1363

<211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1363
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 agttaataaa aaatttaaaa aaataacact atttaaaatg caatatttaa acatattgaa 120
 taaaataaac aatgttggtta gagttaaata ttatatacgc acatagggtt taaataaata 180
 aataattatt ttaaaaaata atttatataa attactttga acaaaatcta gcaataagta 240
 aaaatgggtt ccgctattaa acaatactat gcagcttttg tagccaacat cgccacaatc 300
 tgctacggca ccacaatagg ctgggtcaagt ccagccctgt cagccctttc aacatcgaac 360
 ccttcaccag gcaaagacat catcttccaa ttaaccgacg aagaggcctc ctggataggc 420
 gggttgattt gcataggagc cctttttgga ggcctttgtc cgcctgggtg gcaggagtca 480
 ggggcagaaa gttgtggata tatgacgtcg nccatcataa tcagtggctt tgctctgttg 540
 cgaattgtc 549

<210> 1364
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1364
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 gtgtaaaccc ataacttatt cataactatg acagcaagta gaaaaagcaa gagttgtgct 120
 aattatacga tgaagaaagt agcagccgat catggaaagt tcctaaatag gatcaccaaa 180
 acgctttatt atggaaaact accgaatact gatcgtttta gtatacccat gtcagaattg 240
 gcagtggaga tgttctccga agcccatcgt ggccacactc tgcaaagact acaaatgaac 300
 tcggcttgca acatatctcg aaatgcctgt gtcaaccctc gcgctctcgt attggctatg 360
 ttatatattg acagactacg tgattgcaac cctgaatatg tgcgacaagt agccccagt 420
 gaactatttc ttgatcttg atggtctcta gaagtttttg catgacgatg gagctgaaga 480
 tgaagtattt ttacacgaat ggctgctcag ggggtattca gtacagctta aacactagaa 540
 aaagattct 549

<210> 1365
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1365
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 ttcaatttaa tacttgaaca ttaattttta aattgattaa attataaagt aaattaagat 120
 aagataataa gtatagagtt tcgtgattaa atataatagt ttttatattt ttatataata 180
 attttatcga gataaaaatt gataaagggt ttttcttttg atcttaaata ctatgaatac 240
 ctaatacaag ttatgtatta tatatttacc attgaggtaa attttaagca gttttgtcat 300
 ttataatatg ttgaagttga ttttaacaaa aattaatcgt ctttatgtaa aacaatatat 360
 aaaatatttc tctagaacca acctcaatga tttttacagg tatataacaa aataaatata 420

aatacaaaat ttatattaag ttgtaacatc aacatatact tatattaata tctgaaaaat 480
 tatatattca taattattac cctatctaca tattatatcc tgtctataac ttcattcaat 540
 ccatattgg 549

<210> 1366
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1366
 attttatgcg acattttggg ttatatgatt tttaaacatc tgaactgtaa gtcttttttc 60
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 aataaaaaaa acatcgatcat acattttatat acttagctaa ttactgtaaa attgtaagaa 180
 ttcattttat accttaatga ttaaccatat tccaattaaa aacttagaa gacattaaaa 240
 aaatcaaaag cactaaaaac tggtatggaa aatcgaaata tatgtctttg ctcttcagag 300
 caccggttaa acaacaatca attcattttt ttttaaagat tattcatata ttttgggtgt 360
 caatgatctt attagtttaa atatttttgc atctgtagaa ttaactgcag tagtattttg 420
 caatgcattt tcaaagttaa taatgcgttt tgaattggaa atgattgnca ttaaggtgna 480
 ggtgaatctt catgtataat attaaataag tatctaaatg tttttttggg tattatcaat 540
 agttttggn 549

<210> 1367
 <211> 371
 <212> DNA
 <213> Ctenocephalides felis

<400> 1367
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 gggatgatag actttatgaa ttgtttccag atttggatt ctaacagttt aaatatttac 120
 ttaatatgaa atcattccta tttttatatt gatattttta ttatgaataa gttcataatg 180
 gaagtaccaa ttgtttaaga atgctatgcc atcattcgcc taatattagt aatatatgaa 240
 atcaaattta attatgacaa ataatatata atgttttagca tgtcatattt atttaaagta 300
 ttttgtatat tattattaca aattaataat agcttatcaa ataaaatata tataaaaaaa 360
 aaaaaaaaaa a 371

<210> 1368
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1368
 gtcactgggt actggtcact ggtcattaac ggcgacacgc acgctcgta atttacaatt 60
 gtcctgaatt tgattttttt atttggcggg tccatgagtg attaatctta ttaaattagt 120
 ttgtgtatac ataatatgtg tttgtaatgt acattggatt ctgattttta cacgtgcttg 180
 aaccagtatc atccgagatg ttgacaataa ccagtactta gaattatcag tgccattaaa 240

gattcgtttg tgcagaaata gacggaaaaa gtaattttta tttgttagt gatttttttg 300
 taacttattt gacaatgacg agcacaattg gagtgggttg tgacattcaa gttgtggaac 360
 ctaaattcttg ttccttaccg gtaccacaag aacctttaag ggagccttta ccatcagaca 420
 atggttcgtt ttatagtcgg caaggtccca aagtgaggcg ctacaggatt gccgaagacc 480
 ctgtggatat acagtcaaag acatcaagat gccgctcgct gggttcagga aagggataaa 540
 gaaatttac 549

<210> 1369

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1369

aacgcgctaa caagcgatca cgaacccaat cactaatagt acgatcagta agtgaatcac 60
 ttcactagtg atataaatgg tcaccgatta aacgatttac cggtaaagtg ttcgtgtgag 120
 ttattaaagt gtcggataac aaaatcacag gacgaagcaa gatgaatttg tgcgtgccac 180
 tcttaaattt attgatcctg gcgctggttt tgatagcgca atgtcatgct tcgaaaattc 240
 cggagggaat gcctttaatt cttocaaaag atgccacacc ttcaccctta ttgagagatc 300
 caccacacacc acccctgctt ctcccaaggg atgcgactac tccaccaccg ccaccactgg 360
 tctttccaga agatgtcaaa aactacaaca tcgtaccaa taatgcaacg atcttggaac 420
 ctttgacgca taaagacgat accaatcagg aaagcgctga ggataataat caagaaagcg 480
 atgatttaaa taagacgccc ggtcagaggn cctgcaagga agtgtatagc acagaagtac 540
 agagaggtt 549

<210> 1370

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1370

gaagaaccag ggatattaca ccattcataa taaattatat tgcgatattc acgccaagct 60
 cggtgctcgc caaaatccac cagctggtac cgaaggatgc attccattca cgtgccacc 120
 cggcggaata attccggtga gcgctatctc cgcagctctg gctgcccact cgtctcatcc 180
 acttaattga ggtatggcac cacctaagga ccaagcacc tctaccccg gatatgcacc 240
 agtttcagca ccaacatgca ccaatctgtg tgttcaagt tctccttcgg ccgtcaatga 300
 tactaaccag cctaaccagg ttacatacga atccaacctt ctagtacaga ttgctcccaa 360
 cgatcccaca tataactaat acgaaacttt agagaaacaa cggaaattga attcaccaaa 420
 aagttcactt gtgaactatg tgaaaattac tccgtataat aacaaccatg aaactagaaa 480
 ttcacctacc tcgattgagc acacacatct ctaaatacga aactaatcat cccgaatgga 540
 ctgtattaa 549

<210> 1371

<211> 550

<212> DNA

<213> Ctenocephalides felis

<210> 1374
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1374
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 cacctgagga aatcgattta tacaattttt ggaactatgc gctggtgttc tcacttttct 120
 gatttttttaa acagtntgt gtgagatatn agnctgtag gcctttgaca tatatgccgn 180
 acnagatcct cccaatttta ttattggagn nggtcctaatt ttanttacct cattccaaaa 240
 attttaaatt ttgccaaaa atgcntttct accatgggta aagctcaaat atccggactt 300
 ttttattgcc ttattattng atgaataatt tcgattattt gatttcgatn caaaatctaa 360
 atgaaccagt ttaaatacaa atcaaataat tgaaattatt tgtaacaaaa aaaaaattta 420
 taatcccaaa aatataaaaa atattttatt ctactcattg aacacaaaaat tcacatagaa 480
 aatgngcctg ttgctatac aatatagatt aaaatntacg tncgtatttt aataattttt 540
 gcatatttat 550

<210> 1375
 <211> 348
 <212> DNA
 <213> Ctenocephalides felis

<400> 1375
 caatagaaat taatgaagga atgaaaattt attagttagt ttgacotca tctagtccgt 60
 tgactttggt ttaaaaatat aacgtaattg agttaccagt atgttatatg aagaaaccag 120
 ttttttctca ggtagtaag ttatattctt gtttgttttg ttaatcaatc aaacaacttt 180
 gttttactga tagttctcta aaactgatta ataataagcc tccccagtga gttgatgtct 240
 tcatagtaat aaagtgtctt taatactcca agttttattt acaaaaactag ttttttttgt 300
 aaattgtgca aataataaat gttactgttc aaaaaaaaaa aaaaaaaa 348

<210> 1376
 <211> 155
 <212> DNA
 <213> Ctenocephalides felis

<400> 1376
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 taaaagttat gtatttttaa cattatattt atagatatat aattgtaaat aaaaataaat 120
 tctgacacta ataaaaaaaa aaaaaaaaaa aaaaa 155

<210> 1377
 <211> 550
 <212> DNA

<213> Ctenocephalides felis

<400> 1377

ctcnntttca gttgaattct tctattcgtc atattgtttt acatacaaat aaatgcaatg 60
tgcgttttgt aacgggatct gtgatacttc atacacacat atgtatgaat gatagaaaat 120
aacatttcca acgttcaagt agatactgta tgtagtttag tgtttgtagac ggaattcctg 180
cagatcggaa attactaata attacctgta cagttggaca ttttcaatca aaaaatgtac 240
tggttagctg cattattgct tttgtctacg tgctcagtgt ttgcccatt taatcgcaac 300
atttcccaat gctgcgaaga aagttgctac agtactgatg accaatcca aaatacaaga 360
tttgcgacta aaactgctta tgaattagtt aaaggagtc gagagatct gacagggttc 420
cacattgtga acctgtacag ttctggttgc tgccagacat ggtctagctg caactgccaa 480
gaaatagcag gatgccacat ttggaagttt ggagatgaga tatcgaaatt atcaagacag 540
aaatctggct 550

<210> 1378

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1378

gctgctgggtt aaatattgtc aaggcacttt aatttattgt tatattacat ttgtttttat 60
ttgataagtt aatatttgat tttattatta tttaaatgtg tggcaaaatg attagaataa 120
tttattcaaa cctgttcgaa aattctgccg aagtaagatg cctacgtatt cgtcatcatt 180
ccgtcatctt tgctctcatt tgctgtgcaa acaaatttg tgaaagcaga aatgaaatga 240
agtaaggtgt tctggcgcggtt ttgttgttta tgtagtttt gaacaaatat taagcgaagt 300
gaaatatcac tgttgatgaa tatcagtcatt gttttgatat atagttaatt aataatgatt 360
tactttgata tcaagatatt gatatttaatt taatgacact tttattttgc gtgcacgttc 420
tatgtttcaa agtttatata catttttgatt tgcttgatta ttgataaatc atgacgaaaa 480
gaatcggcgg cacttacgtn gacgggcata ctagcaaggg caggaaatca tggaaactgt 540
taggtccttc 550

<210> 1379

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1379

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gagaaatact gtgaaataaa acttgacaaa ccagaaattc caacttcatt tcagaccagc 120
gaactaggtc cagcagtgtc tgtggaaaag actccagaaa tcgggccagc cgtgttggtc 180
aagaagggtta aggtgaaac agagaaaact ctcgagttgg gtcctggtac aatctcgacg 240
gttgccattt gtcctaattt aacagtcgct gaaatttaca atgccccttt attagcagcg 300
agcgaaccag caaaacaaaa tgttcaagct gatgtcgctc cagtcgattc caacaagcca 360
tcgactcaac cgacagaact tgtagccgag gaagctaaac ctgcagcgag cgaaccagca 420
aaaccaagtg ttcaagctga tgtcgctcca gccgattcca acaagccatc gactcaacca 480
acagaagttg tacggcggaa gccaaacctg tgcacaccta agaggttcta aacaccagtg 540

tatcgaggca

550

<210> 1380

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1380

gaatttttgg ttatttctaaa taaatatatt taaatacgaa atgctgagca aatagtaata 60
taataacaat ttattttatg ttttattaat aaattacaca atggaacaac taaataacgc 120
tttaaaagcc ataaaagtgc tccgttcgag tgtcggacat gtttttgaga ctttgtcaga 180
aggtttaaga actgaacatg gacaagatac taaagacaca aagtttttga ttgaattaca 240
agaattgctg agtgctgtta atgttaactt gagagaggta gagacttcag tgaatagttt 300
aatgcgccc cccgggccat tcaatttagc aaacactact tatttaagtc aagagactac 360
acaggagaga caggctttgt ctgcagcgtt gtaatagtat agtggccgat aagattcatg 420
agtcnaggnc ctacacagct ttttaagtca aatgctttga aaggcatnnt taatcaagca 480
tgcgaaaggc ggnggaccca actttcttta catgtgccnc cgaaacngg ttctttatac 540
aagttttcag 550

<210> 1381

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1381

aatctgtgga tagttcattt catcgtcctc cagtaaaatc agcaaaggct gaatagtgtc 60
gaagttgctg cttgtaatac tgattttgcc attcaattgg aataggcata ttattaagca 120
aatgaaaaaa gttacaaata attctaattg aactcgaaat attgtgtcta ccatatggaa 180
atcaattgca tattgtagtt attcagcagt tcaatgcatt tttgaaatga catttcgtga 240
aaatttagta ttagtagtat ttcccagtga gtgtctataa aactaaatag ttcgaatatt 300
taaataggac ttcttaaagc catttttaat agcttttatt ccgcatagta tttattaact 360
tatacctcca gatgcaaata ttggtcctta tggtaatcct cttatcctta ttattcctat 420
gtaaatatgt aaaaattggt tataaggaag natgtttatt atccaagttt agatattatc 480
atacctatta tattagactg tttgtggcat gctttganaa ataataatat ggattatcta 540
ttaatctgtc 550

<210> 1382

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1382

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aaaaatatat attttaaaat ataccatgat tatttagtag ctggagagtt tgaggtaa 120
tttaatgatc agttcattgt ttgaaattag ttttgaacac agacaaaaaa acaagcagtt 180

tgttgatata tttgaattca aaacaaactt gcaattctcg attgcacatt aaattctgtt 240
 tttttttctg atcacggatg aagagattta aaaatttggg ttttgggagt gttacaaaat 300
 tcgctctgag aatataccgc gcgaattcta agttgtttac tctaatttat ataaattata 360
 ttagaatgct aagaatgaaa gcagtcaatc cctaaatata aaatgagaaa tagtttagtt 420
 ttaaaggcag cgtactcaat ataattataa taaacaaaac aaatttatct caatacaacc 480
 cgtaacgaaa cttttatgtg gatttggata attcttggg atatcggaat ttaaaattcg 540
 atagatat 550

<210> 1383

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1383

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 cgagaaaata atttagaaat catgggggtcc attaaacaac ctggcagggt tatgaatata 180
 caacaaaatg cacagaggac aacaaaagct caagggtggt ttccacaaag cttatctgga 240
 agtgagactg atgtgtccac atccaatgag aatttatcac atgaagagcg atatgttatc 300
 cgtcacactg cacgtgttga accacaaggt caagagacct tgcaaaaccc atcgccaagt 360
 cccactcaaa gccagtgat taatcgattg aaatcaccaa atcaaaatgt acaaagaaaa 420
 ttggaatcca acatccgaga ccattgatag gagtagaaaa atggaagtat taccagtcca 480
 ataaacatga ttcaaattat cgaaataaag agctccatgc cagaatcatt gcataatcaga 540
 atcgagaatn 550

<210> 1384

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1384

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 tttaaatact cgaaacatcg atatatctat tgttgcaa ataaatactgc gaacgatgtt 120
 gttctctttt cattattttg gttattgtca taacaacata agaataaacc ttttacttaa 180
 ttgaacagga atggaaagta tgaaaccgtg gttttaataa aagtaagatt ataattta 240
 gattagaacc acttttgatt aaatatcagt aaatgtaaaa gcctcgtata aaacgatgat 300
 atgataacag ataaggccaa tatagtgtt aaagtcaatc tttagacagt gaaaagtta 360
 attaatgtt tattctaaaa ttaaaattat tattcaatac ttttaataa aatagatact 420
 cataatacaa atattaaaca taaaataatt cttgtaatac tgagtataat gaatacttaa 480
 tataaatggg ttattaataa ctaatatcat tatataatta tatataattg gattcgagt 540
 aaacncatac 550

<210> 1385

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1385

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gtttgtgcaa acttgatgca agttgtcgac gcgtgtagaa atggaaaaat ggagccccct 120
tagcagtccc gagcagctaa tcgagtgcaca tttaaaaggc cgcaaacgtt acatcggagc 180
atgaatagca aggtggaccc tttgccagac gagcacctga ttattctgaa taaattatcc 240
gctactgaat caacattcct catcgctttt aatccatcaa acaattcaat tatccacttc 300
tgaatcaaca gccctcatcg cctttaatgc atcaaacaat tcaattatcc acttatgaat 360
caccagccct catcaccttt aatgaatcaa acaattcaat tatccacttc tgaatcaaca 420
gcctcatcgc tttaatgcat caaacagtaa gacttatcaa ctatctatca ggcaattcaa 480
ttatccactt atgaatcaca gccctcatcac cttatgatca acaatcaata tcactataat 540
cacagcccta 550

<210> 1386

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1386

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gcatattagg ttatatattc tacaaaagaa gaagaaacgg gtgcgactac agggccgcag 120
ctacacattg atatagaatc aaaaaaaaaat attcagaaga aaaatataat ttcatacagt 180
atagtaaatg tataagtagt taattgtagt aatatgtttg tttatggaac ttgcatttat 240
agatttttta aattgaaaat cgtttaaaat caataataag gctaattgtac ttgcttacca 300
aaataaaaat atcagtaagt attataaaat ttgatttaac aatttggaca aattgcttaa 360
aaataaaaag cttcgaatat ttttggctct tattttcatt tatttcattt tatttttttg 420
tactaataan gctggatatc ctaagtttat ttcttatcca gagattttta attaaatttt 480
taanccaaaa ttatgaatgg ttttaatcnc taaaataaaa accaaaattt atggtagaat 540
aaattttttt 550

<210> 1387

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1387

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ttgttgagta aatttaaacc tattgatact acttgatttg aatatgtgca cccttggaca 120
aatagttggt ctgatgcctg tgctgattta acactnnagg ctttcgagag gnccatnaaa 180
atatatacag ttgcatatac agnccggacta ttgatgcgag gcaaagtacc aaataaatcg 240
gacttaagaa agacttttct ggggattcta caatctgcag catttttaac gacaaatggg 300
tttacattcc ctatgttttt atgttttctc agaaaagttt gtggcnatta caatatattg 360
acagtctcat acgtgccttc gtttcttgca tcgtttgctg caatattact agaacggcat 420
ctagacgaaa tttattatgt ttatatgtat caaatgaagc aacaganact gttggaatat 480
gttgaagtct aggggatatg tccgtctata aaatatggag aagtgggaat cnnttcatga 540

gcacgcgtatt

550

<210> 1388

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1388

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taaattttta acgtattcta ttaaaagatg caaagaaata tttccttaac tatattgaaa 120
acaaaacaca attatatttg tatgtgaatt atctctgctt agttaataat taaatttagg 180
tatagacacc actaggtata aaaaaagctc aagatttttg tttctagtac attttacttc 240
aattttctcat atttgctcca tttccataaa tcgtatgtct tcaacgtaaa atttcatcag 300
atgcgaaaca ttttcaacaa gaacaaaagt tactattcag tttctcggtc ttaatttaaat 360
aagccatttt ctatgcactg acttccaatt ttccatgttt ttatattata atttgtatct 420
atttttttga acaagtttcg ttcaaactaa atcagctcgt agtttttcgc aataatgccc 480
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cc 542

<210> 1389

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1389

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tctgcagcat tcacgatcag tcattgatga ggtgtcgtat tgtgttttgc tgtaataatta 180
gttatatatg cgaagcggtc tttacgccgc cgatcatgatt attgcgaagt gatttcgctg 240
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ccgatcatct ccgccggtta cctggtaata gtaataacaa tttttatgca gaactcgata 360
acgaatcgaa gtgggttatt aagtgattta ttagtgtgtg cagtgtttta attgaaaaat 420
tgcagttttc ttatggtaaa gtgcagtttt aatgttaatg tgtgttcaat ctgtgggtaa 480
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gn 542

<210> 1390

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1390

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tttttttatg ttcgttatgg atatatccaa tgtcacagca catgtaaaaa ttacacacga 120
caatgtaatg ataattttta atcttaattt gaaaagatat tgatttatga atatgaggaa 180

gctgtcacaa gcagtaaate gcgttgtcta atactaaaat atattatatac actttatatt 240
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atttgagca gaaacatcag aagtacatat tattaagtct ggtgttcac aaggaagtac 360
tctaaagcca attttgtact ctgtatacac acaaaatatt taagtaacta ttgaaacttt 420
tgccgtatat gcatttgtca tgaggattca cgaaagtgc tccgtggcga cggcaaatgt 480
ttaacaataa tatgaattag tacttaaaaa gtagcttata agtagaaaat aaaaanaatg 540
aa 542

<210> 1391

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1391

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tgctttgggt gccctagttt tttcaaacct caaaggcatt tactgtatgg actgccatct 480
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tg 542

<210> 1392

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1392

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taattgaaaa agaggctgct gotttctctg ctgatgcaac tgaggaaacg aataagccag 180
agactgagcc cgccaagaca cctgaaccgg aaactaccac aaaaagtga ccccataatg 240
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ttcatctgca tatgcataga tggcaattag ctgacagaca tattttgaaa atataactac 360
atatatgtat taaacaatat ataagggcat atatataaat atatatatat atatatatat 420
atatatatat atatatatat atatatagaa tatctgaatt agtttttaggg ggagatatat 480
atgatgttat atnaaannaa agtgtntcta tatgaanaan gggggngngc atatttttta 540
aa 542

<210> 1393

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1393

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actattgaac aaaatcaa gcaaaaagta aataataacg atttgtgatg cttgaactgt 180
gattcaaaat gtgaaatagg aagggtgtaa aacgaacgtg acgtcttggt agtgtgtttc 240
taaaactgtg tcagtagtgt tttaagtccg atataaaatg gatgaagagg agaaaaagaa 300
taatattggt acacctaacc ataattcctt aataaatagt accggaaaac acacttctgt 360
aacacataat ggcgcgaaac ataattcacc tatgatcatc aacaatggcg taattatttc 420
gcacaacgat tacggcagta tcgttactgg aaggagatcg cgaaggatta catcaatgga 480
aggatggcct atcttctcaa aacattgtcc tggacttcgg cgagttatca tcattgatga 540
ta

<210> 1394

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1394

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atztatgttg attataggta agagaatact gcaatgatga tgggtgcctt ttaatatgct 180
tctttatatt ttgtaataac ttttaacttc ccgtagggta agttatagtt atcgcaaaaa 240
atataaaacg aatttttttt tatatcttca cgtttcaggg tttctgaaca ttttggccat 300
agataaattg gcacacctta gaaaaaatgg atgaggggtg gtgtatgtat tggatacaat 360
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cttttacata aggagacact tgctgattag ttttttccaa aggaggtcc agcggtttcg 480
gagatccaga acagaatgtt tttaaatatg ccatttgacg gtcgaaaatc agtattgact 540
gt

<210> 1395

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1395

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cccgttggtg agttgttttt gtttagttat ttttagaatt aagtttgtgc aacttttatt 120
tcaagtgaag aagcagtatt atattatggt tataaatggc attgcatgta tgactcacia 180
aaattaaaga agtgagtgtg gcgattgatg atgaattaga aaacgggtgg aagtattctg 240
aagggtgcaca agatttgagt gattcagtaa ataaatcatc caaaaataag ttgaatgact 300
acatgatggc gtcccaattg aatccagaag ctgccgagtt tgtaccggtt gaagcgggta 360
gtcctgcacg atcagtatta tttttgagag aaggcttgct tgatgatgta atggctcgaa 420
gtccaagaca attttagtgct gctgaacaag ttcttaatgt accatcggtat actgaatttg 480
catcagaaat taaatcanga ccaggagact aagtgcaaat ggttcttttg aaagcgataa 540

<210> 1396
 <211> 542
 <212> DNA
 <213> Ctenocephalides felis

<400> 1396
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 aaccaaaca cacttatttt ccatccggtg caaaacaata cgttttatga tatcaaaaca 180
 ttctcacatg ccccgacaag aaatgtacca attgcaaac agaaacctgg tcgaaaaca 240
 ctggcagctc gtcagactac aaataatgtg caaccacaaa aaatctttgt gcctaatatg 300
 aatacaatgc aggacaagca acatgtatta ttgcaagcaa agttaatcaa atcggaacaa 360
 catataaaca aaactgttat gtatactact acaccaattg ctgtaatcga tgacaaattg 420
 gctatcaaag atttgtccca taaagaacca aaagtgaag agtcaaacg cagtgccaca 480
 atgctataga acgcagatcc ggacaagtat caatgataaa atattgactg aaaatatgat 540
 gg 542

<210> 1397
 <211> 542
 <212> DNA
 <213> Ctenocephalides felis

<400> 1397
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 ggagatcttt gaagatttat gatgataatg gtgatactat cattagtggg gagttgggta 180
 caaccctaag gtctgatagg gtgtttcctt gtcatgccga ggatatgaac ttttctgaaa 240
 ggaagagtcc cctatgccta gaatggctgc acagtgcccg tctctatctg gatcgcgaa 300
 aagacgcttc cataatatcc tcgcacgtcc attccatata cacatccagt ggttcttccc 360
 aaaattccaa caaccacaa cccacacatt ccactttgaa atgctatgac gtctcctggg 420
 ttgcaatttc gccctaccat taccgactg actgttacca gtggactggg cctgccattg 480
 cttgcaaagt atacaagagc ttcaaaccat ttattactgg gaaaaactgg ggaaatgtct 540
 ga 542

<210> 1398
 <211> 542
 <212> DNA
 <213> Ctenocephalides felis

<400> 1398
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 atcatcccta caatgttacc aatgcgacct ggcaataaac ccggcctgca cggcgtctct 120
 aaattccact aaagacattg cagccgtaga atgcggaaaa cttcctcaac aagttagtga 180

aaatgatcgc tccttaatac gattttttgcc accaaatttc gatggacact tgtcaaccac 240
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 ttataatatac acgagaattc ttcgaacatg cattgtcgat accttaaatt gcgagaaaaat 360
 taatgaagac ttaaaacaag aaggattttc ttcaatgatg tgcgcaactt gcaacacaaa 420
 tttatgcaat agttctactt ctttaagcat cacaatttta ttaccattta tattatTTTT 480
 aatcacaaaa gcccgcttta gggaaataat ttgagttaga tgaaaatttt caaagtcctt 540
 ca 542

<210> 1399

<211> 542

<212> DNA

<213> *Ctenocephalides felis*

<400> 1399

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 tctaataattc tgtctaaata aatgagaaaa atccaaaatg ttcaaaatgg agggatgcta 180
 tttgtcagga gggggtatgt aataacagct atctgaatcg tcacatttct catagcattc 240
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 ttctgaatct tcagaagatt gttccttttc tataatttca tcattttaat ttaatttggt 360
 tgcacacaat aaatgggtta caaattgaaa actaatgtaa aaaaattatg agcaagtttt 420
 ctgaaaatta aaaataaaaag atgacttaat ttagtatcag tgtcatcggt ttatggagta 480
 acatccaatc atgcaaataa atgattaatt atgaccatgc cagagacaga tttcacatga 540
 at 542

<210> 1400

<211> 542

<212> DNA

<213> *Ctenocephalides felis*

<400> 1400

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 gcccccttag gattaatatg cagtaaaagt ttttttattc ttattttatt ttaaaaaaat 120
 gacaatgtat gtggttccac aataaaaaaac gtaacgattc tattttatta cttatttttt 180
 ttgtggaatt ttgtgaaact atttcacaaa atttttgtac gatttatctt cttgctttct 240
 gattgtatac ttttgatctt agttttattc cacaatttaa cagcctcata caaatgagca 300
 tatggacgtg atgtcactat tttatccact taaaaaaaaa tggacctgaa aatagatcga 360
 gttctatatt gttcccattt tatccaaatt gacttcccat caaagtcggt ggtaagttct 420
 tggttaaaga tttaatggaa gctttttgta tttttttttc ttgtggaatc gacatttaca 480
 aattgttgac taaattcctc ttaatttctt aaattggaat cagctcataa atcaatgtaa 540
 aa 542

<210> 1401

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1401

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ttgatataca aaacattcga ttcattgaaag atcattccat aaaaaccata atgtatcagt 120
attatcaaat aataaaaattt ttaataattt taactaccgc tgattatatt tcattgcttt 180
tttgtactgt gcagcataat ttaataaaaat ataagcacct aaagcaagtc atatacagta 240
ctacatatgt tgaagaattt gatgaaagca atcaattttt gatttgtaat tgatttaaat 300
atattatgtt aattaatttg aatatatgta ttagattata gattgttcat tcgtattgca 360
gaaatacgaa ttgaaaaatt aattatttaa ttaaagatct ataaatttcg tccaaaactt 420
aatcactgat tcaaaaatttg tgcagtagtt gcacatatatt attttatatg taatttagat 480
gttatttttt gcatattcaa taggatagct tttttacaaa aaatattatg taatcaatat 540
aa 542

<210> 1402

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1402

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aaatttggtt ccgacgccac tgcatagatt ctaactaact aaatacataa aatacaataa 120
gtactactta ctttatatat tattaagttt acttacaaca atattttttt atttattact 180
ttttttatat tcgacttctc agattatata tattattaaa atttattatt cgatgtatta 240
ttacaatcgt gccataaatt aaaaaatatg agtatcgctt gtaaataatat tagttaccag 300
ttagatgtaa tttttgtact ctcaaatatt aatcgaaacc aaatttttga ttattattaa 360
taattgataa gtagttttta ttaaaaatagt tggacgtttg catctcagat aaattatatt 420
aattatttta taagttagt atgcattgta ataagtcaca cttctataaaa ttaattttta 480
atcaaattct tgggtataatg ngaaaattta ataagctcac tatatatatta tgcttatata 540
ta 542

<210> 1403

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1403

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gcaaaaattt agtgtacgct gatagtggat atgtgtaaat tagacgttac tagaaatttt 420
tgattttaat aatgagtatt ggtaaaatgt gtacgcaaac gagcgtctac tagttggacg 480
tatgtgataa tggctggtgt cggacataga tctagcaacg ctcaaaaag acgtcttaac 540

<210> 1404
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1404
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 aatgttgctc cacctagaat gcaagatgtt gtccgtccaa aaagatattc ttgtcaaaga 120
 cctgggtggta ttgtaccaga aacaaacatg caaggccaac cgagcaaca acaacctgta 180
 tatcaacaga actactatgc aactgaatat actccgctg tagcaaatga acaaaataat 240
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 gttgtacctc ctaatatattc tgtgccaccc ccgcaaaca tgccttatgt accagaacca 360
 gttcctacac aggtcataac cactagtaat caagtgatgc cgcaacaagt tcttgccctc 420
 aatatcctca agttctatgc agtttaattc gggaggaccc tacatggctc aaataatact 480
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 atccctcata 550

<210> 1405
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1405
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 ttgtaatat tacatgattg tattacagtt tatgctgtct gagcatagag aagcacctgg 420
 aaccataaat ggcttcttga aaacatgcat cacatctcat gtctacacat gtatcctgca 480
 ttgatgagaa ggggtgtcaa tcacatccat acataatgat gtacatatat cctgcattag 540
 tgaagagaga 550

<210> 1406
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1406
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 naggnttggn ggctcgtnac nagaacntt gnnnncgntc aantagcca ngatnngttt 120
 ctcacannat tgntggngtg ttnttctctg cctnaaagac ngatacacat ggatntatgt 180

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 anccctacna ntgcanaagg ngtnanttct gtctgnaaac gganntgatg gantnttnna 360
 agaatgcgnc ngtaanannn natnctntgn cnganctgga cgtgcncttc tgcttgata 420
 ccaactttaa cnagacctcg ccnatatgtc atnaantgag aaccgcttg ccangacata 480
 tcnntntttt ctctgaaaac agaacattta tngtnnaann gctatncctc aggtntaaan 540
 cccatcgang 550

<210> 1407

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1407

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 tagtatattc atttgaatag acttgagatt gagacaaata gcgcgcgacg tgcaagtcac 180
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<210> 1408

<211> 428

<212> DNA

<213> Ctenocephalides felis

<400> 1408

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 tgtaacttca actttccaat ctagtacaaa gaattttttt gaacaaattt atggaatgtt 180
 cggatttcga ttcccaacca ccaccggatg ggattttgca aatcccacca ccaccgccac 240
 cgccagaacc aaaattttat gaattgtgcg aaaaattgga agaagatcgc cgaatatcga 300
 tgtatgctct tgaaagcacc ccaggcttca ccatgtacac agaccactgg tatataatat 360
 tgattgtgat tttagtagta attgtatcga taataattat aatattcctc aaaaaaaaaa 420
 aaaaaaaaaa 428

<210> 1409

<211> 455

<212> DNA

<213> Ctenocephalides felis

<400> 1409

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taaggttaga catggaaatt gtgaagtatg tcacaggcac gccgcacggg acacctcaca 120
ttcagccatt cagggatcat acaagtggcg accgtgcgaa gcgcgagccc tgcgtgaacg 180
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agatctatta cacttatgca gtcatcaatt agtacataaa agaaaacaat ataagaaaaa 360
aatattattt tcttgcatTA ttcaaaagaa gctatgtaaa tattaataaa gcataaatag 420
aaagattcac ataattcaaa aaaaaaaaaa aaaaaa 455

<210> 1410

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1410

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tgagtcaagt tttaatgatt taaaatcact cgagagcaga ggggcattag aaaataaact 180
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cgaagtatat gacccatggg tccttgaaaa tgttgatgct gacattgaac taccaaacat 300
tgccaagcta aacggagctc ttgccaacgt aacagttgat ggtttatcta gtttcaatat 360
aaatcacata aaagtgaatg tgctcttcat gaaagctact ttcaatatca cttttgacca 420
tctcatggca aagggtctat acgacattga aggcaagttg gcagatttgg ctaagttgtt 480
ggcaaagggt cctttgatat catgnacgtg attaaacgct gtggacatgt caactatggg 540
tgaaaggtta 550

<210> 1411

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1411

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taaaattatt gcctaataatc aatgatcacc aaacaaatag tttttaattc gttttttatt 180
taatttttaag agaataattat tatgaatatg ttaagattat ataaatagtt atgaacgttt 240
ttcttaagaa atactcaaag acataatata tacaaacttc atataaatct gttcttaata 300
taaaacttgt taagagattt tgtcataatc ataaatttta tttacttcga aatactatta 360
aattgtgcat aaaattattt gatatacagt gttcttttta atatccactt ttattatttt 420
aaattcatat agtattttca tattttatgt taataaaaata tatttaataca gacactaact 480
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atgggtgctcg 550

<210> 1412

<211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1412
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 aaatatcggt gtttgtgaaa atttgtgtga aaaagtctat taagcatctt caagtttggt 180
 atggctaaac ctcacctgaa gaaagtagcg ttcctgagga cccgctatgt cacagcacta 240
 aaattaagat ttttcttctt tgtgacaata ccagtttgtt atttggattt tacagcgtta 300
 acaaaacaat ccgtttcttc tgaagatatt gaattattacc cgcagacacc agaaattact 360
 ggatcgcgga aattgcttgg ctatctttca ccgatgccaa gaattcgagc ctggcagatg 420
 atcatggtca taactgcacg cccgcagcta tcttagattt tccctctgat ggattcacca 480
 gggagcaaag aagacagggc tgggcctggt ccatgccgca tcgatctact gttctggctt 540
 tagcatagtt 550

<210> 1413
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1413
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 tatgaatcac taagccaaag ccaagattat acaaaaccca gtgggttctta tgggtccagga 180
 ggaagtgtta gcggtactac agtgggtgct caggtatctg gcaaattcaa cacaactaca 240
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 gatatagcaa gcgctatgta taataaaact catacagcat taaataaagt taattcttat 360
 gagaagcaaa catttcattc gggcacacca ccacogttca acatgccagg aagtgggtcc 420
 agtgggtacta cttatggggc tccgcattta tttataccaa caatggcacc tcaccaacaa 480
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 agtcacangg 550

<210> 1414
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1414
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 aattttaagt tattttttta attatgatca tatcttttta ttcctacatg tctttcattt 180
 tagtattgca tataattttt agtaaaaacc ctttttcagt tacattaatg ttttctgttg 240
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 ttagtgtagg tttttgagat tgaccaaaat aacatctttt ctatctgatc atattctgtg 360
 tatttttata taatttatat taacagcttg cttttaataa ccgtttgaat ttagtttgggt 420

attgttgtga tcaaaacgat aatttgcattg tcttcaaaat ttctttgcc gaaatttga 480
 aaaaagtntt cttatttatg accaatttat gntgagtcta attgggttta ataatttta 540
 attctggaca 550

<210> 1415

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1415

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 agtgggtctgg ggcctcgaaa atctgttttt gttgtcatta taatagtagg atgtttttct 180
 attttatggc caaaaatatt tcatcccatg tttatgggat ttccagatca acaaattatg 240
 ccaaagtcta tggacagata cgcagggttg tgcgatgtga tattcagcag cgatatgaac 300
 gctctgatga cagtaactaa tttatgtgcc caagtgttta aatttcaaga tttcaatgaa 360
 acaaagtatt tgggctcaaa cgtgaataat agatgtaggg ccgaaatatt atcacgctgc 420
 ggcctggcat attaccggta ttttcatccg gaaaagggtg tccagatgtt aaaggagtga 480
 aacgccttct tacgagatng ttcgcttaat ggctcatctt gcctnagtga gttcgggaatc 540
 ctccatggct 550

<210> 1416

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1416

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 atctcccagt tggatgatg atgccaaagt tggaaatatt ttacattggg gagtttatgc 180
 agtaccaagt tttggcacag aatgggtttg gcaaaattgg caaggatcta atgtgtcctc 240
 ctacgtggat tttatgaatc agaactatcg accgggattt acatatcaag attttgggtac 300
 agaattttact acggaactgt ttgatccaaa ccactgggct gagctattcc aagcttctg 360
 ggctaaatat gttgtgttaa caagcaaaca tcacgaagga tacaccctgt ggcatacaag 420
 tactctttca gttggaactc ccaggacgtt ggtgctcata aggattta atagggttacta 480
 ccaacgcaat tcgcagcaaa accaactacg tttcgtctct atcactcttg tcgatgggtca 540
 cagacttat 549

<210> 1417

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1417

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 ataccagacc gcagaaagtc caggatcaac atgctgcaca gcgctgtatt ccgatgtaga 180
 agtgataaag atggaaatatt cggatcattt tgaagttgtt gacccgaaat ctctacagat 240
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 ggaaattacg acaaacgatg atattaaaga agacagtcca aggcgtcttt gccttgtttg 360
 tggatgataa gcctctggat tccattacgg cgttgccctca tgtgaggcat gcaaagcatt 420
 ttttaagaga acaatacagg gtaacataga gtataattgt ccggcagttg gagattgtga 480
 aatcaataaa cgaaggcaaa agcatgtcaa gcctgtcgat tcaaaaatgt tagcattgga 540
 tgtaaaaga 549

<210> 1418

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1418

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 aatcagccca gtttttacia ttagacataa cagcgtgga ccaccaccac caggcactcc 120
 acctccacia acacgtacta aatttggtcc tcttaaagat gaagacagaa tttttacaaa 180
 tctttatgga cgtcacgatt ggagattgaa aggatctttg aaaagaggag attggtataa 240
 aactaaagaa atcattctta agggagctga ttggatcata aatgaaatta aaacttctgg 300
 actcagaggt cgtggagggtg ctggttttcc ttcagggttg aaatgggtctt tcatgaacaa 360
 accaggagat ggaaggccaa aataccttgt ggtaaatgct gatgaaggag agccaggaac 420
 atgtaaagat cgtgaaataa tgcgacatga ccctcataaa ttgggtggagg ctgttaattg 480
 caggaagagc atggcgctcg actgctcatt acatagagga gaatttatat gaacatcaat 540
 ntcagttgc 549

<210> 1419

<211> 406

<212> DNA

<213> Ctenocephalides felis

<400> 1419

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 gataagtgcc gaatatgctg acgtagatgt gtgccaagat ttggacgatg gaacttttct 120
 tgctgattca aacaattgcc aaaatttctt catttgatg ggaggccgag cttggaaaaa 180
 gtattgtcca ggatcacttt tatggaatga tcacgaagga acatgtgatt acgcacaaaa 240
 tgtagaatgt taccaaccag aataaaacat tttaatatct gacagcgatt ttctgaaact 300
 atatttcata ctactgttat aataaattta tcttcattgc tctcctccta taaatttatt 360
 ccgttttaat aaaatcaata taaagacaaa aaaaaaaaaa aaaaaa 406

<210> 1420

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1420

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agaacagaag tatatatgat gagtatcagt gcaatttaaat aatgagagaa cgttgtttca 60
atattattag taccatatac catataatga attagtagaa aaaaaattgt tgtagtgttt 120
tagtattttc ggacatcaac tcattaaatt cataatgtct tcaggtagac ctataaaatg 180
tgttgctgctc ggcgacggaa cagtgggaaa gacatgcatg ttaatatcat acacaactga 240
tagtttccca ggagaatatg tccctacagt ttttgacaat tattcagcac ctatggttgt 300
tgatggaatc cctgtttcat tggggctttg ggatacagct ggacaagaag attatgatcg 360
attaaggccg ctgtcttata cccaaactga tgtattttctc atatgtttta gtgttgcaag 420
tccgtcatct tttgaaaatg tcacttaaag tggtatcctg aaataaaaca tcaactgctg 480
atgcacctat aatcttgtgg accaaaatag attaagagac gatagagaaa ccttaagttc 540
tctacagac 549
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<210> 1421

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1421

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cctgatgtta agaggtgcat tcttagatta ttagaggac cagttagaca actcggcatg 120
gaaaatactg aattgatgaa attagttgag gcctgtgcaa agggatctga aaccttggtt 180
acaagggtga tacatatttt gaccgaaaga agtttgcta gcatggaact agtttctaga 240
gttcgagatc tttatcacac taaagtatct gatgtccgat tcttaatacc agtattaaat 300
ggtcttaata aagacgaggt tatagattct ttgccaaat tcattaaact aaatccagta 360
gttttaaagg aagtttttaa taagctgctg aataatcaag caggtcctac atcatatcct 420
agtccagtta cacctataga gttgtttag cgtacatata atagacacaa ctagtgcaga 480
tttaaaattc gagtgaagc aacaagttgt gtttagcagag aagnaattac acccagaang 540
atgcagagt 549
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<210> 1422

<211> 534

<212> DNA

<213> Ctenocephalides felis

<400> 1422

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tggtcaaaat tgatggaaag acattcactt tcctcaattc aaaatgtgag gctgctcatt 120
taatgaagag gaaccacagt aaagtaacat ggactgtctt gtacagacgc aagcacaaga 180
aaggtaaga agaagagttg actaagaaac gtactcgtcg tacacagaaa ttccaacgtg 240
ctatcgtagg agcttctctt aatgacatcc ttgccaagag gaacatgaaa cccgaagtac 300
gaaaggcaca aagagaccaa gctatcagg ctgcaaaaga gcagaagaaa tccacgaaag 360
cagcaaagaa ggctgcagct ccacctaaag tgaaagcccc accaaaagct aaggccgcta 420
aagtgaacca gaaagcacc ccagggttgg cggtaaacga taagtgggtg tggagattat 480
tctaattgat tatatgaaaa ataatttgta aaatgctaaa aaaaaaaaaa aaaa 534
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gaagaaggaa ctacagttta atttagaaga agaagagcga aagattcgtg ttaaatctgt 360
 tggaaatggt agatttattg gagagtattt caaacaaggt atgttgccac aaaaattatg 420
 atgcagtgcc ttaggatgct ctgcagtcaa ttgaagaaga aagcctcgag tncctggcaaa 480
 ttgtgcgaca ttgccggatt tagaaattac aaaatcaaga tttnaacctc tttcttaaaa 540
 tgcaagaat 549

<210> 1426

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1426

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 gtggtcctga tgatttccac cacgagatag gacatagccc accaccttac catgaagacg 120
 acgaccagct gggcacacacc cgcaaaagca gcataagtga tagcgattca gaagacgatt 180
 ctattgatac ttgcgcggat tattccocaga acgcggatgt cgatgagtta cttcaccttg 240
 gcaaaccagt acgcattaca ttcgaactac ggctcacgaa ggcgaacagc acgctatggg 300
 agacagtttt gaaggagaac gtgctctatg taaatattcc taatgtattg ccttctgagg 360
 ggtctcgtga aagtttcacg gcgctcctgg aactgaccga ggagaagttg ggatgccatt 420
 cgatggtggt gtgcatgcga cgcgatcggt cagacagaca gcagctcatg cggcattcat 480
 gttcctcggg ttccaactgt gcaccaaaca acaagctaata gcaccgaagg tcacgatgat 540
 atttgatct 549

<210> 1427

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1427

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 cgtgcctcat atacttcacg tgtattctta aattcgtctg agcaatttcg tttacaaagc 120
 acattagtaa ttgctgaaca ttcaaagcga aaattaaacc cattgactca aaatgcttta 180
 acagctgcat caaaaattgg aggtgaagta acagttttta ttgctggcaa aaattgcaaa 240
 ccgcttgcta atgaagttgc caaagcagcg gggttgaaac aagtcttatt agcggaaaat 300
 gctgcatttg aaaactgttc tgctgaagcc ttgacaaaac ttgttggtgc agttcaagag 360
 caatataaat ttacgcatat tattgggtgt gcaagttccc ttggcaaggc tgtattgcaa 420
 gaatagcggc aagtttagatg tttccctatt tctgaaataa ttgatgttaa agatctgaac 480
 attcgtcgac aatttatgcc ggnacgcttt cagacactga ggtgaaagat ccctaaagct 540
 atcttcgtg 549

<210> 1428

<211> 555

<212> DNA

<213> Ctenocephalides felis

<400> 1428

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gcctacaagg acaatgcttt cctgaacaat gtacacaaat gactgcaact gaacaatgga 120
tatttctatg tgctgcccac aaaactccaa aagaatgccc agcgatagat tatacaaggc 180
acactttaga tgggtgcagct tgtttattaa acagtaataa atattttccc agtcgtgtga 240
gtataaaaga gtcacatcagtt gctaaactag gttcagtggt cagaagagtg tatagaatat 300
tttcacatgc ttattttcac catcgagaa tttttgatga atttgaagct gaaacatatc 360
tatgtcatag atttacacag tttgtaacaa agtacaactt aatgtcaaaa gacaatctga 420
ttgtgcccac tttagaggag gatgcaacta tcggagaatc agaggcttaa gcatttatgt 480
tatttattta aaatatctgt gcatgcattt tttatttttc ttgtgagtga ncgtttatta 540
aatcattatg tnnat 555
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<210> 1429

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1429

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ttgtctgcca aaaatattgt tatcgagtt ggaggacggc ctaactatcc agatattcct 180
ggagcactag agtatggaat tactagtgat gatattttca gtttagatag agaacctgga 240
aaaactgtag ttgttggtgc tggttacatt ggacttgaat gtgcagggtt tctgaaagga 300
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attccaaaat cagtagaaaa atgctcagat ggcaaaactt ttgtacttgg taaatcttct 480
gataatccca cattcagatg tatttgatcc atttgttgta tcggaaggaa gcttaacaaa 540
gattaaaat 549
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<210> 1430

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1430

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ctgtcaacta tgctgatatt ggtctaataa aagtggcaaa agacattgta ttcggtgaca 180
aagtccaacc gatcaaaaatt agcaagagaa acatcaaggg tggtgaaatt tgcaaggcaa 240
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aaatatgtac attcaggga tttggtagag gcatttgctt tggtgattct ggtggaccac 420
tagtttacia aaatgaactt gtggcattac atcgatgcac ttatctcctg cagagggtggc 480
aggcagatat tttgtgaagt gcgagatttc caatcctgga ttaattctga aattgaaaaa 540
ataaataga 549
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<210> 1431
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1431
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 atgttcttca aatcggaag cgaagagagg gaacatgcc a tgaaactcat gtcttacttg 180
 atgatgagag gagaactgac cgagaggctg caggacttga tcagaacacc aactgttcca 240
 atcacgactt gggctgatgg tttgagtgt ttgaaagatg ctctgaaatt ggaggcttcc 300
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 gacctgccgg aaagatctcc accctgggca agatgatgaa ccaacaagggt gttctcgga 480
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 aataaaata 549

<210> 1432
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1432
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 aacatacaaa actgtctctg gtgtcaatgg acctctggtt attttgatg aagttaaatt 180
 ccccaaattt gcagaaattg tacaactcag actttctgat ggaactttac gttcaggaca 240
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 tttggctgaa gatttcttgg catccaaggt caacccatca atccctggtc tcgtatctat 480
 cctgaggaaa tgatccaaac tggatctctg tattgatgtg atgaactcat tgtcgtggac 540
 agaaatccc 549

<210> 1433
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1433
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 ggtgatgtga aaatgcaagg acaagcatat aaagataaaa gtaaaccggc tgatattcgt 180
 agcagcaata tatgtgtgtc gaaagctgtt tctgatgcag tacgtacaag tttgggaccc 240
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gccacaattt tgaaagaaat gaatgttact catccagcag ctaagatggt ggttgaattg 360
tctcgggcgc aagatattga agctggcgat ggcacaacat cagttgtagt agttgcaggt 420
gctttgctgg aggctgctga aaagttactt cacagaggac ttcattccaac tgcatttctg 480
atgcatttca aagatgtgct ccaaagctgt ggaaattcct acacctgtca caccaattga 540
cttactgtc 549

<210> 1434

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1434

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taactaataa gcgtagtttg tgtaataaca agtaatttct attagtagtc ataagtaatt 120
gaagagaaaa ctattttcca tataagaatt gaaagcataa aatgattctc tccgtgctga 180
aaaaatctcg catcgtgcac ttgtgttttg ccatttcatt cttcacatca ggcctgatca 240
taaacattgc acaattcata ttatacacat gtctcaagcc tttcaacaag aggctttaca 300
gaaaacttgg ttattatttg tgctacacat ttacagtcga gatagtgttt ttagctgact 360
ggtggtccaa atctaattctg acctacaca tatcaaagaa agattatgaa caatgtggga 420
aggaacatgg tcttttaatt atgaatcata cgtacgaaac agattggtat taggatggat 480
gtttacggaa aaaattgggtg tcttgggaatt gtaggatatg caaaaagact attcaatata 540
tccgcatta 549

<210> 1435

<211> 509

<212> DNA

<213> Ctenocephalides felis

<400> 1435

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ttttatcaag atggcgcaag aattgaagct ggttttagaa aatattttca ccgagcagat 180
cctgatcaga aggaagacag ttacacaatg attgtatgtc acgccaatgt aattcggtat 240
tttgtgtgca gggctctgca atttccgtgt gaagccttggc tgagactttc attaaatcat 300
gcatctatta cttggattag tatacagccc agtggttagag taattctacg agtttttggg 360
gaatcagggt atataccagc aatacaagtt accagtcagt aaaattttta taacataaga 420
taatttcaat ttatttttat tcgttttctt gaaatttata tattttgtat caaattatgt 480
ttatatacct gcaaaaaaaaa aaaaaaaaaa 509

<210> 1436

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1436

aaaaaatatt attctaacat tatggcgagc atacctgcac gaccgaaaat tttgttaact 60
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 tgcaccggac gtccgtctcc atcacgacaa ggaattttgg aaaaaattgt gggagttcat 180
 ggtttaatgt ggtgtactaa agaacgtttg gacaaagaga tattagatgc tgcaggaccc 240
 aacattatgg ccatacttac tatgtcggct gggctggaca atgtagattt acctgaaatc 300
 cgcaaaagaa atattccaat tggttatact gcaggagtgc tgaataatgc tgttgctgat 360
 ttaactgttg ggcttatgat agctactgct agaagatttg gagaagctag gaaacacata 420
 gagaatggaa catggggaag cggacctgcg tggtttttag gcagaaatgt atctgaaact 480
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 tatgactat 549

<210> 1437

<211> 251

<212> DNA

<213> Ctenocephalides felis

<400> 1437

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 gtgaaagtgc gagatttcca atcctggatt aattctgaaa ttgaaaaaaaa ttaaatagat 180
 tccaatcatg atttggtata atgaaaaatg gtttaataaa ggcagcataa tttaaaaaaaa 240
 aaaaaaaaaa a 251

<210> 1438

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1438

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 atatgcatac agaagagaag taatttgggg aatacacaaa aatggaagat gatgccgata 120
 taagagaaca aatttttcac aacaatgtca gagagcagat tatatttcta ttactctttc 180
 ttctgctgta tttctcttcg tactggctga ttggatggtt tcgtcgcaaa gagcgcgatg 240
 atttttacac ttgcgcctac gacgacgatg gcgaggcgac ggtgtacaga atcagcctat 300
 ggctctgcac cttcgcgctt gcagtcagcg tgggagcagc acttttacta cctatgtcta 360
 ttgcaagtaa cgaagtgtcg atactgtatc cgaacagcta ttatgtcaag tggctgaaca 420
 gctcactgat tcaaggattg tggaaccatg tattcttggt tcaaatttat cactattcga 480
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 ggcagactt 549

<210> 1439

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1439

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tccattgact ttcaatgcta accagaaacc tgtcgccttg gcctcaaagg atacacctgg 180
agacctcaaa tgcaaattct ctggttgggg attagacgca tatccaagtg atgttttacc 240
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taatgctgga cctaaatcta acacaatcta cccaggaatg ttatgcggat tcaacaaact 360
taatgttggt gcttgcaagg gtgattctgg tggccattgg tatacgaaag tgcaaagtgt 420
ttggaacaag tcggtgtagt ttcctgggtt tatgaatatt gtgctgtggg tgtgccagat 480
gtctacgttc gcgtatatta ctattggact ggattcacga aaatccgcct gttttgcata 540
aatatataa 549
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<210> 1440

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1440

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gcatctcggg aatttttgaa acaaaaactt atacaaaatg ttatcgtgaa caagtactct 180
acaaatatag ctgaggctgt atccgtcaaa gatgctttac catacaacaa gatacctgga 240
ccttcaacat taccaattat tgggtgtagcc catcattttg cacctggagg taaatacaaa 300
gggtctcgatt tagcccaact aacagaaaag ctctatgaag aatatggaga tattgttgcc 360
atcagaggat tgcttggtta acccgatatg gtttccttta taacttcgat catatggaaa 420
aagtatatcg tctgaaggcc ttgcctgata gaccagcttt tgaatcacga gaatattctt 480
gagagaaaaa agaccagaag tttcaaattg ttatggctaa tcaactcaag ggaagaatgg 540
caaaaatcg 549
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<210> 1441

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1441

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agatatgaca atttgattaa aataaaagct tcaagacgaa tattgctaac tgggacacct 180
ttgcagaata atttgttaga gttaatgtca cttttatggt ttgttatgcc ttctttatct 240
gattgccaaa gggaggattt gaaaagtta ttccagaaaa attcaaaaac taactcaaca 300
gtgaagaaag gtgaagatga tgatgattta ccactttttg aacaaacaca aataacacaa 360
gctaaaaaga ttatgaagcc gtttgttctg agaagactaa aaagagatgt tcttaaagat 420
ttgcctaaaa aaactgatta cactgacaag ttccaatgca ctttctcaaa aacttcaata 480
tgagcaatta attcaaacct tttttcagaa ccggagaaat catgcaaata aagaaagagt 540
ggaatgcaa 549
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<210> 1442
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1442
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 ctactttctt tgaatcttgc ggtgtggctg atttagttac tacatgttat ggtggtagaa 180
 atcgtagagt ttctgaagca tttgtgaaaa caggtaaatac attgaaacaa ttagaagacg 240
 aaatgttaaa tgggtcaaaaa ttgcaaggac caataacagc agaagaagtt aattttatgc 300
 tgagaaatcg tggcatgcaa gacaaatttc ctttgttcac tgctgttcat aaaatttgca 360
 caggagatat ggatgttaaa gaattttctta attgtataag gagccacccg gaacacatgt 420
 aagtgcctgc tttataaaat ataaatcaga tttaaaatgc ttctcagatg gtaatattag 480
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 tagtatttg 549

<210> 1443
 <211> 546
 <212> DNA
 <213> Ctenocephalides felis

<400> 1443
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 ttgtgtgttt tattaatatca agtatctatg tcaaaaatgg tcaactgaaa gtgtaaatcg 120
 ggaggaaata atccaagtac aaaagagggtg tcaataccat ctgggaagct tactattgaa 180
 gattttttgta ttggaaatca tcaaagttgc aaaatatattt gcaaaaagtca atgtggattt 240
 ggagggtggtg cttgtggaaa cgggtggttca acacgaccaa atcaaaaaca ctgttattgc 300
 gaataaccat attccggatg aaagacccaaa ttgatataaa ttactaaaat tatgctagat 360
 agcaatcata aaattttgaa gttttcaatg atcctaacat gttttgcctc aattttattt 420
 aacagcaaat tgtggaacta cgtccgtac aaatgtcaag aaatctgatg ttacaataga 480
 tattataata tgtacattgc tatattatag aatatatact gattgcaagt tgaaaaaaaa 540
 aaaaaa 546

<210> 1444
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1444
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 aagtgtcctt gttcgatcgt atgggacact tctgcgggtg ttccatcatt agcgacgaat 180
 gggctctgac agcagcacat tgcgtatttg acctattctc gccaaagcaa tatgcagtgc 240
 gtgtcggaa tagtttacat aacaaagggtg gattnatcca caaaattgcc aaagtatata 300

tccatccaga ctacgatgaa gtaagctacg acaatgacgt cgcagtcctg aaagttgaaa 360
agagatttag actgaacggc atgagcgttc gcacagttaa attgggttgac gaagatcacg 420
agttgatgat ggtgcccact tactgtcact ggatggggca aattaatgaa taggcccacc 480
cataaattac angagtgaaa gtgcctttgt cgaccatgat catntccgca gtactctttc 540
cggaaacaat 550

<210> 1445

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1445

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cttcaatatg tgatgaacga ttcacttgga accctgataa tgagcaaaga atgattttac 120
aagaagctct gtccaaagca cacactcatt taggcactgg agcatcaata ggttccgggt 180
ccatttctgg tagctccatt ggttcttctt ctacgtcgtc ttcctcatct agttcttcct 240
caagttcttc ttcattggtc ggcagcggaa tgggagttag ttcaactcaa ggacaaaagg 300
aaattgttca aatcagccca caaaaagtag ggcttaaatt aagaattaat gaagttcata 360
aactaaatgt ttattatgca caagctgaga ttatccagta gattatatta tttgatggac 420
ttgctaagtc tatggaagat gataagagag atgncagcat tggagattac tctcagaacc 480
tgagaaatat actcaaattc cgggtgggtt ggactttgng gataagtng atgcntatgt 540
gcaacatgcc 550

<210> 1446

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1446

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ggtaattcca tgaaaagatt acaagaagat actatgtgta agatggccgt cttaggtaga 120
ggctcaatga aagacagaca aaaggaagaa gaacttcgta attccttaga tcccaaatat 180
gctcatttgg ctgatgatct acatgttgaa atatcggctt tgggtcctcc acagaagctc 240
acgctcgagt tgcttatgct ttggctgaag tccgtaatat ttggtccctg ataataatga 300
tacaattcgc caagaacaat gcgtgaaatg atgactgacc caatgcccgc cagaagaaat 360
gagangagca cccacattag acgaggtggt tggctgtggt gcttctcgng aggaggatac 420
taatcgngca gcttcgacat ntggggnatg cttctgngtt ctaatgtgat ccggcctcac 480
ccctcctcac tegtgtatcc tgtaactaaa tcttcattaa taacaaagtg ctgagaactt 540
gtntaaaccc 550

<210> 1447

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1447

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atttactatc taatgaatct tcattaaaat attttctagt tcaagttttt gcttcaattt 180
tattattatt ttttatttct ttgaattttt tatttaaaaa cttttttaga ataatatatt 240
ttaatgaaat ttatttaatt ttattaaatt catccctatt tttaaaaata ggggctgccc 300
catttcactt ttgatttcct agaataatag aaggaataaa ttgaataaat aattttattt 360
taataacatg acaaaaaaatt aaccctataa tttgttaagt tattgnatta atataaatta 420
ttttatttaa ttcattatta agaattataa ttggagctta ggtggattaa ataactctct 480
tacaaaaatt atacttattc tcaatacact atggctgaat aatattgttt aataaataat 540
gaataatttt 550
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<210> 1448

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1448

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gaacctgata agaagcttat caaccgttca tgtccatact tagatactat caatcgtcac 180
gttttagact ttgattttga aaaattgtgc tcagtctcgc taactagaat taatgtttat 240
gcatgtttag tttgtggaat atattttcaa ggcagaggaa acaacactca tgcttacacc 300
cattctgtca gcgaatctca tcacgtctac cttaatctga caacattgaa attttattgt 360
ttgccagaca attatgagat aattgactct tccttagatg atataaaaatt gtattaaatc 420
cagtgtttca cctgaaagca tagctgcatt agatgtaatg tgaagctatc tagagctatg 480
atggctctatg atatgcccg aatgggtggc ttataatatt aagcaatgct atgcatgtat 540
ctgcagcctt 550
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<210> 1449

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1449

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caaattcaac tttgtgcctc atccagaaga cccaatatgt ctagaacgta aacaattggg 120
tgaacactgc aacgtaggcg aacaatgtca cacaaaattc aacttcaatg ctcatgtgtg 180
cogagaagtc tgtgtgtgca gggaagatca ccacgaatcg aggaacagaa cttgcatcca 240
atctaaaggc tataaccaga attgcgttga tgatatcgaa tgtttcatcg gagaagaata 300
cagagacagg atcagatgtt tccagaacaa gtgtctttgc aaacctgaat ttccagtcac 360
tgaggacgga aaatgcggat ccggagctcc aggcacacaa gtgtgggtcct cggttatgac 420
attagcagtt atggcatcag tagcaaaaat catccgatgt aaaagttaa aaatagaatg 480
tccaagaaaa taagaaaaga cttaccacaaa cttacttcga ttacttaaga acatcttttc 540
nagcatagng 550
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<210> 1450
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1450
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 cacacacaca catatgtata tatatatata tatatatata tatatatata gttcaaaaat 120
 aatagcagct aattattcaa ccaacatgat aatataactg ttacggattc ttcacaatta 180
 ttcaatattg aataattcag aatatatata tatatatata tatatatata tatatatnca 240
 tgtgtacgaa catgtatatg tgtatatata tatatatata tatatattnn tatatatata 300
 tatgtatatt cgcacatgtg tntgtacatg tatataggta tagatgtttt ttttgacana 360
 catantgtnt attagtatat atataaaacta tagtataaaa atataaatga gtgggttcatt 420
 tactttntgc acacctgact catngaactc tgcttttctaa gacataaaat agaataatta 480
 aaattnngnc tcatgtattt naacaatata ctatctatgg gggantgtat atgccngcct 540
 atctatttnt 550

<210> 1451
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1451
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 agaaacaatg ggagcaggca gcacgatatt tagtgcaaga caagtgctgt ggtgtatggt 120
 gttctgcgga ttcgccggtta actatatgat aagaattaat ttaaaccatag caatagtgtc 180
 tatggtcagg catcgatctt taattgtggt taacgaaaca attaacgaaa aattgcaatt 240
 agttttggat tctggggcgg aaaatgtttc ggaaagttca tccagcacc c aagcgctcgg 300
 accaagcgag atctatcagg aggaagatgg tttcatctgg gacgaatacc agcaagggtt 360
 aattttaggg gcatttttct ggctccactg gatcactcaa gtaccaggag gaatttggt 420
 agaaaatatg gtctaaactg gtgtttgggt tgogaatttc taggtgctta ttttgctcat 480
 caccctatc gcgtatatga atatcaacac tatatnctcg agtaatcagg cattgttgcg 540
 gtttcttggc 550

<210> 1452
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1452
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 tgcaaatcc atccgcaacg aagataggag gtacgcataa gatctacttc aatactgtgt 120
 gtgaatatgt aattcgtttt tgcaaaatat ctattattat gcaaaaacaa tcaacaatta 180
 taccttcaaa tttgaaaata ataattcgat gtatgtatac aaaagccaaa ttttactaaa 240
 ggcttctaatt ttaagaaata ttatataatt gagaacattt ttatgaacta tttaaacgtt 300

aggaattatt tggagtgttg tcaaagtctt ttaaagtgtat taatatttac aatttgatta 360
 ttctcaaata acaaatattt ttaatatattt tgtaagtgtta ttttatatat tatcgaagta 420
 aacacaaaga caaaaaatat atctacacat gtatgtatat atatatatat atatatatat 480
 atatatatat atatatatat atatanacac angnnnaccn cacacacata natttctatg 540
 tgtgtnnatg 550

<210> 1453

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1453

atttttcgag tgccactaag atgggttaaaa ttnntaatga accgcgaaac tgggaaagtt 60
 atggaatagt tgatgagcaa caacaacctt caacctcctc tgcaaacctc aattgcctaa 120
 atccaactac tacttctact tcagaccgtc ccgcagcgac ggtttccaaa agaaaactgc 180
 cttcatatcg agaaaaaatg ccacgttctc gcacaagatc gcgatcccgc agtcgtcggc 240
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 ggtcttcttc tagaaggagg agacatcata gaagtaggag caggaataga gacagacata 360
 cacgtaggan aaacgagagc ggagatcatc atcgaggtta caggcgagcagtc tcaggagaaa 420
 ggagctatcg aagacaccac agacatggag atgattcagt cccgccgaac aagtacgcgt 480
 gaaaggcatc aggaaggctc attnagatga taggaggaca tctcatgtca aacctgngat 540
 ataattggag 550

<210> 1454

<211> 474

<212> DNA

<213> Ctenocephalides felis

<400> 1454

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 ggtcgtttcg ctgtgogtga catgagacag accgttgccg tcggtgtcat caagtctgtg 120
 aacttcaagg atgcctccgg tggtaaggct accaaggctg ccgaaaaagc caccaaggga 180
 aagaagtagc tagatctacc gatctgctta ctgcagatgt tcaacactgt aatgaaacac 240
 tacttccatc gcaaagcggt tcgaagaaaa aaggcctcat tcattccttt actatatgtt 300
 ttttgactca gctttatatt ttatatgact attttataga ataataatta ttttatgttc 360
 tgctctatat taaaatgaat ttatattaat gtatggatat tatgtgctaa gaaagaactt 420
 gaagagatgt gcagctgatg tgtattatag tatggnataa atggaancca aagt 474

<210> 1455

<211> 347

<212> DNA

<213> Ctenocephalides felis

<400> 1455

gtttngtctc atgcaataat taattaaact tgtttggttag aggtgcaaaa taaaattaaa 60

ttaaaaatgac tgcctggaga caagctgggt taaactacat taacttttca acaatcgctg 120
 cccgaatgggt ccgccaagct ttgaaatctg atctaaaaaa tgaggctttg aaacggggacg 180
 tatctagcat taaattcaca ccctggaagg acggaaaagc gatcaaaagt gaaaccaagt 240
 aatcacaaga tggaataata gacaattcac tcaaattaat aatgtgtacg taaccgataa 300
 caagaataaaa tgtagttng atnaaaaaaa aaaaaaaaaa aaaaaaa 347

<210> 1456

<211> 356

<212> DNA

<213> Ctenocephalides felis

<400> 1456

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 tagttcttgc tcgcgttatg aaagtcttgg gccgtacagg atcccaagga caatgtacac 120
 aagttaaagt tgaattttatt ggtgaacaaa accgacaaat catccgaaat gtcaaaggac 180
 cagtacgaga ggggtgatatt ttaacacttt tggaatctga acgtgaagct agaagactaa 240
 gatagattaa ttctaaaatg tgagaggtga tatcctgaac tataatatct gggttcaatt 300
 atttgtatgg aattataaat atacgactta tcactcccaa aaaaaaaaaa aaaaaa 356

<210> 1457

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1457

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 acaaccaaag gtgccccac agaagcaaat catcgcttca aaggtgatgg gaactgtgaa 120
 atggttcaat gtcaaaagcg gatatggatt tataaataga actgacacca aggaagatgt 180
 gtttgtacat caatctgcc a tagttaaaaa caaccgaag aaggtgtcc gcagtgtagg 240
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 tgtgaccggc ccagaaggag agccagtcaa gggaagccca tatgcgccg acaaacgccg 360
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 ggaggcgaag gtaaagaagg gtcgggttcg ggaggcgaga acggtgatgg caaggcccgt 480
 caaggaggcg gccccgcgtg gccgattccg cggtcgccac gatacacact attacggcgt 540
 ggcggacggc 550

<210> 1458

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1458

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 ttgggaaagg cactgtaga gcgaattgtg caacaagggtg gccgagttgt tttatgtgat 120
 ttacctaat caagtggatc tcaagtagca aaagatattg gagataattg tttatatgca 180

ccagttgatg tcacatctga aaaagatggt gaggaagcaa tagcatthaac taaagaaaaa 240
 tttggtcgtc ttgatgttgc tgtaaaactgt gctggtatcg gtgtagcatt taaaacatat 300
 aatttcaata agcagttgcc tcataaatta gaggatttca caaaagtgtt aatgggttaat 360
 actgttgga ccttcaatgt aattcgattg ctgtggattg atgggagtaa atgaacctaa 420
 taaggatggt caaccaggag tgattgtaac acacaagtgt gctgcttatg atggcagatg 480
 ggacaagctc ttattctgcg tccaagggct ttgtggaatg cactgctttt gctaganatt 540
 accaggcaag 550

<210> 1459

<211> 546

<212> DNA

<213> Ctenocephalides felis

<400> 1459

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 aaatcaaaat tttacaagt cagatgcaaa tgaagaaaat acaaataaac ctctaccaga 120
 atttatttgc tcgtgttgtt cacttaaaca accttatgac tataaaggat gtaatcctcc 180
 atttgcaaaa aatatagcta caattgatga atcctatata atgaaagatc ctttttagtcc 240
 tgagaacaaa aatgaaattc ttatattggg agccgattgt agtatttgtc aagaatctgt 300
 atgcgtatca accacttgca gtatattttt catgaaaact ctatgcaaga aatgtgcatt 360
 gaaacagaaa aacatgtacc ctgaacgatt taaacaaatt attgacatgt ttttaaataa 420
 atgcttaggt agttgaataa atgttgtatt taaatttata tttaaaatta actgttaaat 480
 attgngaaaa agaaaatata gaaaataatt gataaaatgt gggatgatg aaaaaaaaaa 540
 aaaaaa 546

<210> 1460

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1460

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 gcaggcttgt gtgttgaagc tgattttata tttgcgcccg aagatcctcc agatgccaac 180
 tggccaagt ttttatgccc actattaagt caggaacgat tagctggaag aaggcaaaat 240
 attatcatgg tatcagaagg ggcaattgat agaaatggag aacctataac agcagaaaaa 300
 attaaagaag tcattattgc aggtttaaat caggatacaa gaattacagt gcttgccatg 360
 tacagagagg tggaagtcct tctgcttttg atcgattact gggatgtcgc atgggggcag 420
 aagcagtatt agcccttatg gaagctcatg atgagctctga ccttgtgttg tgaccttgcc 480
 cgaaccaaca gtcgtcttca atgatggaat gtgttctcac caaactgtac ttacgcttgg 540
 aaaataaaat 550

<210> 1461

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1461

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ctgtcacgaa ggaaggtttg gagttgcctg aagatgaaga tgaaaagaag aagcgtgaag 180
aggataagac taaattcgaa agcctttgca aggttatgaa gaatatcttg gataacaaag 240
tagagaaaagt agttgtgagc aaccgattgg tagattcacc ctgttggtatt gtaacatcac 300
aatatggctg gacagccaac atggaaaaga tcatgaaggc ccaagctctt cgcgattcct 360
cgaccatggg ttacatggct gcaagaaaca cttagaaatt aaccccgatc attctgtgat 420
tgatacttta agacaaaagg ctgatgctga tccaaaggat aaggccgtaa agatttagtt 480
atcttacttt tcgagacagc tttgctgcat ctggtttact ttagatgaac cccaagtccg 540
ctnaagaatt 550
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<210> 1462

<211> 312

<212> DNA

<213> Ctenocephalides felis

<400> 1462

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attgnaactt caagaattgt acgtaaaggc tttgactaat gaggagtgc aagctaaatc 60
accaattcca ccaacgaccc aagtctgcac acttttgaa aagaatcacg gagtatgctc 120
gggagattct ggtgggtccat tgcttttgga tggcgagcaa gttggcattg cctcatttgt 180
tatcttcaaa tgtgcaatgg gataccctga ctatttcaca agattgtctc tatatgtaga 240
ttggattgaa caacacatgg attaaaaata ataaaataat aatttaatgt aaaaaaaaaa 300
aaaaaaaaaa aa 312
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<210> 1463

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1463

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tgatataata caaaataaat acaatttctt acatgctatt attataattc aatattaaaa 120
catttggtact ataataatac aatgaatttc ttatatatat taatatgctc tctttgtgctg 180
gtagtaaagt cgggtgggga tacattagtt ttattagaca atcttgcaat taaagaaaact 240
cattccatat tttttaaaag cttacaagat agaggttatg ttctaacatt caaattggct 300
gatgaagcca atttagtttt atctaagtat ggagaatatt tatacaagca ttttaattcta 360
ttttcacctg ctgtggaaga gtttgaggga tcatlaagtg tcgaggcaat tcagaattca 420
tagatgaagg tggcaatgtt ttggtagcag gaagtgaatc ctggtgatgc aattcgtgaa 480
tagctctgaa tgcggtttga ggagatgagg aaggacactg tatggacatc ttaatatgat 540
ggtctgataa 550
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<210> 1464

<211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1464

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cgccctttatc cgagtgttg ggcacagctg cacctccacc accgccacca ggaccaggac 120
catcgcaacc ctttgcttgc gtgctggacag gattgttttt ggattacact gataattctt 180
gcaaattggtg ctacgagtgc acattaaacg ctcaagggtgt attcgacgtg gcccgatatg 240
cttgtgcagc tgagttatat ttcaacagcg ttctgcagca gtgcgtacct gcataccagt 300
cagactgttt aggtgcaagt gtcacttctt ccccatccat accatcotta ccatccttac 360
catctttccc aaccttgcca acatcttccc caacagcagg atttcctttt ggccgaaaat 420
ctcttgatat gcaaacaaaa actggaacta aatgtacaaa aggagaagtt tctaaagacg 480
attaaattct acatgtccta gtgagtggtgt atatgaaatg ctattgatat acatcaagct 540
tataaggtat 550
```

<210> 1465
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1465

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cgттаacgтт ggтттттсгт aacgtattat atatacaagt gtgtggatta attaaatatt 60
tacaatggca actgaagtgg taaacaacgt gcaagtcacc gagaaggatg tcaaagagga 120
gttgcccag aaaaaaattg aagaagaagc cccggccaca gagaaatctg aaaaggccga 180
tgaggctccg gcttcgaaga ccgagcctgc accaccgaag gtgctcgtgc ataaaaacaaa 240
cttcgaaaag gataccgtgt atctttacca attctccaga actcctcttt tgccatcgat 300
gtcgccgtac tgcttgaaag tggagacctg gttgcgtttg gcaggaatca aatacgagaa 360
tgctgaccac aagatgaaat tccgcagcaa gaaaggacaa ttgcctttcg tcgaattgaa 420
tggtgaagaa attgctgcag tgccatcatc atgaaggagt tgtcaaacct acggaaagga 480
tctggatgct gtttgacacc agacaogcat gtctccatgc tatggatcca tgattgaaaa 540
ccacttgat 550
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<210> 1466
 <211> 546
 <212> DNA
 <213> Ctenocephalides felis

<400> 1466

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gccgatcaaa agtatcaaag ctcgctcaaat ttctgactct aggggcaatc ctaccgtcga 120
agtcgattta gtgaccgaat taggattatt tagagcagcg gttccttcag gtgcttccac 180
aggagcttat gaggtcttg aattacgtga taatgataag actcaatata tgggtaaagg 240
agtatccaaa gcattgcaca atattaatca attgattgcc cccgagttaa ttaaacaatc 300
ttttgaggtt actcaacagg aagagatcga caaatttatg ttgaaactgg atgggtactga 360
gaacaaatct aaatttgag ccaatgctat attaggagtt tcattagctg tgtgcaaagc 420
```

tggtgctgct aaaaagggtg ttctotgat caacatattg cagatttggc tggaaataaa 480
 aaaaatgngc ttctgtcca ctttcaatgt atcaatggcg gagcatgctg gaataactgt 540
 ttcaga 546

<210> 1467
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1467
 gtaaaataat taatttattg ttaattacat tataaaataa gctaatatgt aactcatcac 60
 aaaaatagca ttaataaat tacaatggcc cacctaaaca agagtttgaa accaataaat 120
 tactccaaca cgtcattcag acactttttt cttgtattat ttttcgtatt ggttttcgcc 180
 ctcaagtattg ctttattagt tttatttcca tatagtggaa aaagacatga aatctataag 240
 gatataagtt tggaagatgt cataaacgtt ccagaacaaa tcattcatga tcaagctccc 300
 tcagcaaadc ctcgcaatcc aaaatgcagc cactgggatt gttttaatgt gtatcgctgt 360
 ggcaataaag ggcacaatca aatatctatt tatatttatt caattaaaaa atatcttgat 420
 gctgatgata tacctgcact ggtatcatgt gcaaagaatt tattttattt taaaaactat 480
 aaaagatnca aatttacaca tcaaactctga tgaggctgga tatttgtcca agattgtact 540
 taaatcaaac 550

<210> 1468
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1468
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 gcagtgcctg gaatttcttt tgtcaaattg acatgcgtgc attgctctac aaaatgtgct 120
 acattgaagg agtatgttac ccatttgagg agcaaaatac acaactcata tatgagccgt 180
 tttagctgcac gtcacaaatc tcgattggcc aaaatgcgag cacaacagag gaatgctcag 240
 cgagagatcg atgaaaagaa tcaggaggac tattatttaa agacaaagtt ttgtcctact 300
 tgcaaaactta attacaggca actcagagct gaacatcaag cttctgaagc acataacgat 360
 attaagaagt atttgaagcc ttattgtagg acttgctgta tgactttttc aagtcctatg 420
 cgttatgaag tacatatttg ttcaatgcac acataaaaaca taaagctcat ctggagtatg 480
 taaaacacaa aaaacaagat atgaagaagt tggtagtgat gaagctgaaa gaatggattg 540
 gatatttatg 550

<210> 1469
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1469
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tccaagaaca agaggagcac atcgagacct tgttgggtcaa gatcagcaat ctggagaaac 120
agaagagcag actgcaaagc gaagttgagg tcctcatcat cgatctggag aaagcaaaca 180
gcgctgcccg cgatttgagc aaacgttgcg agcaattgga acgtgtcaac atcgagatca 240
aatcacgtct tgaggagacc attcagttgt atgaaggagc ccagagagat ttgagaacca 300
agcaacagga gttgcagagg gtcaaccacg aattggacaa gaccagggaa cagaaagatc 360
agttggccag ggaaaacaag aaattgggag acgaattggg agatgctcgc aaccagttgg 420
ccgaatacaa cagacgtttg cacgaattgg aactcgaatt gagaagactc gagaatgagc 480
cgaagagttg ctgctgcatc aagaggccga actgtcgcaa ggccaagaca cgttccacgt 540
tggcnacgat 550

<210> 1470

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1470

gcaantcgca aacgagtttc agagcacagc ggctgcgcat ctgttaagct caacggctat 60
agtttttcag tattataatt tgtattaagt cgaagtaaat aacaaacatg agggaaattg 120
tgcacattca aaccggacag tgcggaaacc aaattggagc taagtctctg gagatcattt 180
ctgatgaaca tgggaattgac ccaactggag cttatcttgg agatcatgaa cttcaattag 240
aacgtatcaa tgtttattac aatgaggctt ctgggtggaaa atatgttcca cgtgccattc 300
ttgtggattt ggaacctgga accatggact ccgtgcgttc tggaccatac ggtcaaattt 360
ttaggccaga caattttgtt ttcggacaaa gtgggtgctgg taacaactgg gctaagggac 420
attatactga aggtgctgaa ctagtgcact ctgtttggat gttgtgcgta aagaagctga 480
atcttgtgat tgctgcaagg ttccactacc cattcttggg angtggnctg cttgnatggg 540
acactattga 550

<210> 1471

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1471

ctgtgccaga catccaaaaa ccagctcctg aatttgcagg tactgctgta gttaatgggtg 60
aatttaaaga cattaaactc agccagtaca aaggaaagta cttggtacta ttcttctatc 120
cattggactt cactttcgtg tgtccaactg aaatcattgc cttctctgac cgcattgatg 180
aattccgcaa gattggatgt gaagttgtag cagcctcttg tgattctcac tacagccact 240
tggcttggat taataccgca cgtaaagaag gtggcctggg acaaatgaat atccacttc 300
ttgctgataa atccatgaaa attgctcgtg attatggagt tttagacgaa tcactctggag 360
ttccattcag aggcttgttt atcattgac ccaaacaaaa tgttagacag gtcactgtta 420
atgacttacc agtaggcaga tctgtagatg aaaccttgag attggtcagc cttccaatta 480
ctgatgaaca cggagaagtt tgccactggc tggagacctg tagtaaaact atgaaagcgg 540
accaaacttc 550

<210> 1472

<211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1472
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 cacatattgc agcagtagaa cgattaccgt tgagtactac aggatgcca cttcaaattc 120
 gatgcaaaac attccaatca gtaatatttc ttataagaaa agaaaacgat agccatgacg 180
 tttataatac tttgttgcaa ttagcccaac ctgtttctat cgatgatctg tattgcttcc 240
 agtacaccat aaataaaaaat gatatgcata agagcgaagg ttggaattat tttaatattag 300
 aggatgaatt taaaagaatg aatgttccaa atgatgaatg gatttacaca gatttaaagt 360
 aaaattatga gctatgtgat acttatccta attgttgtat gtgcctgcta acagcacaat 420
 aaatatgtta caaggaagtg caaaatttcg atccaaagga agataccggc ctcacatatt 480
 acacaagaac aagcttcaat atgcagatca gcaacctttc tggttcagtg cacgatgtct 540
 gagatgacaa 550

<210> 1473
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1473
 aaaattttta ttttaattat tatgtgttcc tttatcattg atgcgagaag taaaagtttc 60
 gaaataaagt taagacggtg gaaaagtcct cgaacttcaat tgattgaaat ggatcgaaat 120
 atgcgtatag cggtttgga agatattcaa gaaaacgaaa gctattattc ggatccatct 180
 aaacctaaac ctccctccagg tcctaaggac aatgatacta tagcaattta taaattttta 240
 gatactgaat tttatgtctg gggttggaata ggccatcctg taaagtattt caaacttggtg 300
 gttgacactg catgggcaga aacatgggtg gcctcgaaac aatgtgggtt aaagtgtgtt 360
 ggatgttgga atcttaataa atatgactct ttggcatcat caacatttca agaaaacggc 420
 aaagaatttt cttttggctc agcaaagaac cataacaggg tcttctcaat agaaagtttt 480
 atattgccac ataaatgtta aaatcagact ttggggaagt acatgtttgc cttgcaactct 540
 gtttcaaaca 550

<210> 1474
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1474
 ccntaccgcc gatttggttcg aaagaagaaa catcgcccaa gtcacacttt gtttatatgc 60
 tttgggcaga cttacacaaa aacatcccga atacacagga ccatcattag gccccaaat 120
 ggcagaaaag aatgaaagga cgtttactga agagcaactt agagcccatg aaggagaatt 180
 gaacttgcaa atgggataca acaaaggtgc atcccaatct ggccatgggtg gatttggtta 240
 cactaggcat atgtaatttg ctgattttat acgtatttct gaaaatattc ctcacaagtc 300
 tgacgacgat acagattagt agattcgagc acactttgtt caatgttatt ctgatacaga 360
 ctcaaaatta acacaaacta acagaataaa cagcacattc acaaacactc ataactaata 420

gatatagaca caacactaat ttttaacacaa tccaatacat aatgacatat aaaaataaat 480
 taacatctct cgcattaata cgatacaaaa atttaattac taacaaacat aatttacata 540
 ttgaaatctt 550

<210> 1475

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1475

agctcacaga attcagggct agctttaacc acttcgacaa gaaccgcaca ggacgttttg 60
 cgcctgatga gttcaagtca tgcctgggtt ccctcggcta ctcgatagga aaggatcgct 120
 aaggcgattt ggacttccaa aggatttttg cagtagtcga tcccaatgga actggatacg 180
 tccacttcga tgcattctta gatttcatga cccgcgaaag tacagacacc gacactgccg 240
 agcaagtcac cgacagcttc agaattcttg cctccgacaa gccatacatt ctgcccgatg 300
 agttacgcag agaattgcc aagaccagg ccgaatactg cattcaacgt atgccacctt 360
 acaagggacc caatgggtga cccgggtgct tcgattacat gtccttcagc acagccttgt 420
 acggtgaaag cgatttgtaa ggtagaataa attttcataa acatttaagc aaacatttga 480
 caagtacaca taaaggtaaa taatgaagtt atgagagtta cgatcaaaat tagcattgng 540
 ct 542

<210> 1476

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1476

gtttatcggt gtcttgggtc atgggaccag ngnggcatca ttaatcatga atttaaatag 60
 tgtcgttact aattttctcag gtcttgtagc gagtccgatg ttgaaaaagt attccgttcg 120
 gaaagtggcg gtggccggat cgctcctgac cgccacgggt ctcatgatca gcagtcaggc 180
 acgtccctg tggctgattc tgtttgata cagttttttg acaggtctag gtttgggttt 240
 tataatgcct tcggtgttct tggcagtgac ctcttatttt aaggtgctcc gaggccgggc 300
 ggtgggcctg gcagcagccg gtaccggcct gggacaaatg gtaatgcctc atgccgntcg 360
 agcactgttg gacgaatata gtttcanagg agccactctt attatggccg ctatggcttt 420
 acaaggggtg gtaggcgctt ctttattcaa cccgtaaaga atacatgaac cngtcnatga 480
 cgnccgaccg agaaaaaatn tttactngac cngatttacc cctgacgctc agacctgaag 540
 aa 542

<210> 1477

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1477

ctccattctt tcttaggttt cattctttta agctgaccat cccaaaccaa atcaaccaac 60

cctccttgtt tggtatcac tgctttcaca cgatttgcaa agtctattga actctctttt 120
 tcttctctaa acattggagg taagtaccaa acatcacata caatcgcca tgaagacatc 180
 atcatgtata aataatgcat cattgaatac tttgaactgt tccaaaaggc atctccaaac 240
 tttggatcat atttgatggc tacaggataa attactcctc cgacttcaaa tgagcctttt 300
 ttaaactgca ttaccgatgt attattgata catgttcctt ctggaaatat taatattggt 360
 ggattattag gatcagagat atgctgccga agtctgtagt gacggcagtt cgatctttga 420
 cttcagagcg ttcaaacc aa atgtgaggtg atgccctagc cagcgccctt tgcagtatac 480
 ctaggaaacc atcatgtctc tgccaattag agaatagcaa ttatcacaca tgagaacaag 540
 ag 542

<210> 1478

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1478

cacnaaggca aaagtttgta catttccaaa gngatggatt ccaaaccctt tgatcccgtg 60
 gaaaatgggc tcgataaaga cttcaggctt actaaattta ctgaattagg agggtgaggt 120
 tgtaagggtcc ctcaagatgt tttaaacaac ttacttgagg gactctgcga tatggagaag 180
 gccaaagtcca gtgatagtaa ggaagttgga attggattgg actgctccgt tactcctctc 240
 gaagaaaact ggtacctttt acaaacaaca gattttttct atcctttaat tgaagatcca 300
 tatttaatgg gtcgaattgc ttgtgcaaat gtggtcagcg atttgatgc aatgggtgtt 360
 accaaaatta caaacatgat gatgttatta ggcattagta ataaaatgac tccgaaggaa 420
 cgagattgtg ttattccttt aatgatgaaa ggatttaaag atgggtgctaa agaatcagat 480
 acaactatcc aggtggacaa acagtcttga acccttgtgt attattggtg ggtnccacat 540
 ca 542

<210> 1479

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1479

gntatggaaa aagccgaaaa gctggggccat cgcgttcaaa aatgtgtggt tgctgctcat 60
 ctgaaacgtg tcaactcctg aaccagcgag gagatcaatg gagtcgagac tcctatgaca 120
 gatggcgcgc accattggtg gcatgaggaa atggacgaag ttgaaccagc atgttaccca 180
 gaatggatgg ctgctgagga tccattgttc atgctttata caagcggtc cactggtaaa 240
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 actggacatt cgtatgttgt ctatggacca ttagctaata gcgccacctc cgttatgttt 420
 gaagggacgc cattttatcc ggataacgat agatattggg cggatttgaa aaatacaaaag 480
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 aa 542

<210> 1480

<211> 542
 <212> DNA
 <213> Ctenocephalides felis

<400> 1480
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 tagcaggagt tgatactaca tcaaatagta cagcattttt gctgtatttc ctggctacga 120
 atcaaaaatg ccaagataaa ctacgtgaag aaatcagaac aattctgcca aataaggatt 180
 cacatgtaaa taacgaatca tttcaccatt tgccgtattt gagagcttgt atgaaagagt 240
 cgagtagaat attgccaata attggaggca ctgttaggaa agtaccagtc gatattgttt 300
 tatcaggata tcaaattccg aaggggaccg aggtggttct aagtcattct actacatcaa 360
 tgaaaagcag tcaattccct gaacctgaaa aattcatgcc agaacgatgg ctgagcagcc 420
 aggaatcaga aggatgtcct ttagcaaaaa atgctcatcc attttcgcac atgccttcgg 480
 tttgggcctc gcaactgcgtg ggaaaagatt gcagatttgg aaatggaact ttatatgaag 540
 ta 542

<210> 1481
 <211> 539
 <212> DNA
 <213> Ctenocephalides felis

<400> 1481
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 ttactataaa tatattaggt attgtaggta ggtttatttt aataatttct catggattat 120
 gttcttcttg gatattttgt ctttctaata ttatttatga acgatcagga agacgaagaa 180
 ttttaattaa taagggttta ataagattta taccttcaat aacattattt tgatttttat 240
 tatgtagatc taatatagca gctcctcctt cattaaattt attaggtgaa attatattga 300
 ttaattctat aataagttga tcaataatat taatagtatt aattataata atttcattta 360
 taagagcaag gtatagacta tatttatttg cttatagtca acatggaata agaagaataa 420
 gactatattc ttgtcttctg gaagggttcg agaatattta ttattatttt tacattgatt 480
 ccattaaatt attaatTTta aaaagagatt attataatta tttataaaaa aaaaaaaaaa 539

<210> 1482
 <211> 540
 <212> DNA
 <213> Ctenocephalides felis

<400> 1482
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 atagaaaaac atttaagtga aaattaatta cgtttcagca gaaatacatc ttctttgtaa 120
 atttgggggtt aataatcttt caaaatgcag atctttgtga aaactctcac agggaaaacc 180
 attacttttg aggtagaacc ttcagatacc attgaaaacg ttaaagctaa gattcaagat 240
 aaagaaggaa tcccaccaga tcagcaacgt ttgatttttg ctggtaagca attggaagac 300
 ggcagaactt tgtctgacta caatatccaa aaggaatcaa cattgcattt agtattacgt 360
 cttcgtggag gtatgcaaat ctttgtaaaa acattgactg gaaaaactat tacattagag 420
 gttgagccct ctgatccatt gagaatgtaa aagctaaaat ccaagataaa gaaggaattc 480

cccagatcag cagcgtttgt ctttgctggc aaacaattag aagatggaag acttgtctga 540

<210> 1483

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1483

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tgtgaccacg atggacgcgg aactggagtt cgcgatccag cagaccacca ctggaaaaca 120
gcttttcgat caggtggtca agacgatcgg tctgcgcgaa gtctggtttt ttggactcca 180
atatactgac agcaagggtg atttgacgtg gattaagctt tacaaaaagg tcatgaatca 240
agatgtcaaa aaggaaaatc cacttcaatt caaattcaga gcgaaatttt atcctgaaga 300
tgtagctgaa gaacttatac aggacattac atctcgtctt ttttatcttc aggttaagaa 360
cgctatactg tctgatgaaa tatattgccc tcctgagaca tcggttcttc tagcatctta 420
tgctgtcaag cccgacatgg agattttcaa aaagaccaac actcttctgg attttggcga 480
acgatagact gtaccacaaa gggtaatgga tcaacacaaa atgtctaaag aagaatggga 540
ac 542

<210> 1484

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1484

cagacactga caaaggcaaa aatgggtcgt cgaccggcca gatgttatcg ctattgcaaa 60
aacaagccct accccaaatc tcggttctgt cgtggtgtgc cagacgctaa aattcgtatc 120
ttcgatttgg gtaagaagaa ggcaggcgta gaagattttc cactatgtgt gcatcttgta 180
tctgatgaat atgaacaatt gagttctgag gcactggaag caggacgtat ttgctgtaac 240
aaatacctcg ttaagaattg tggtaaagat caattccaca tcagaatgag gctgcaccc 300
ttccatgtta tccgcatcaa taaaatgtta tcgtgtgctg gagctgatag gctccaaact 360
ggaatgcgtg gtgcttttgg aaaaccacaa ggtactgttg ccagagttca catcgggtcaa 420
ccaatcatgt ctgtcgttcc agtgacagat acaaggccgc tgtttagtag gctctgcgtc 480
gtgctaagtt caagttccct gcagacaaaa gatctatgtt ccaagaaatg gggattcact 540
aa 542

<210> 1485

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1485

cacaagttct attcaaccag atagaatctt acttatggat acgtttttcc aaattttgat 60
cttccatgga gagactatag ctcaatggag agctttgcga tatcaagata tgcctgagta 120
tgaaaatttc aaacaacttt tgcaagctcc agtagatgat gctcaggaaa ttttattgac 180

acgtttttcca atgcctcggt atattgatac cgagcaaggt ggatcacagg ctcgattttt 240
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aa 542

<210> 1486

<211> 540

<212> DNA

<213> Ctenocephalides felis

<400> 1486

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cgctgaatat tgttacgatg aaagtgttac tgcttggtca tgcactgcc aataaggagga 180
tctcccccat tgtaacgctc tctactccgg ttccacact gtggctgccg atttatcatc 240
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ttgggaaaac gcaatcaatg tcatcaaata catcaccaag cgtgggggca ctgtcgactt 420
ccagactact cacaacgtca aactaccgg tgtagccgaa acatcagaat tggaaagttt 480
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<210> 1487

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1487

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tcgcgagata tcgtgtaaac ttaagtttat taaattatta tgtttatatg aataaattat 480
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cg 542

<210> 1488

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1488

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cagaaaggga gccaaagactg tttttccact ttaccgaggt tttggatgtg acgagagaga 180
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tgattttcta tcaaagcaac ggtcaaaaaga aatcagttcc tttctttgca aaagattgtg 480
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ag 542

<210> 1489

<211> 542

<212> DNA

<213> *Ctenocephalides felis*

<400> 1489

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ctctatatgt atatatttta cattaccttt gtaataggta atatgaataa cctctttatt 480
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tg 542

<210> 1490

<211> 542

<212> DNA

<213> *Ctenocephalides felis*

<400> 1490

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gagatctgtg taccatttga caatggttagc agtgccctcat ttgattgaga cgaagggaaa 180
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cagcagcttt attactgggtg ctctggttacc ggtgatggag gcagacatgc ctgtgcccac 540
ga 542

<210> 1491
 <211> 542
 <212> DNA
 <213> Ctenocephalides felis

<400> 1491
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 tattcaaagt aataaccaac atttctgtgg tggttcaatc attgctaaag attgggtact 180
 gacttcttct caatgcgtcg tggacaaaca aagtccaccg aaggatttaa ctgttcgtgt 240
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 tccgaaatat aataaagcag tgccagatga ttttgatgtt gcacttttac ggatcaaaga 360
 gccaatatca tttactccat gcacagtaac tcctgtaaaa ttaatacaat cgggaaaaga 420
 agtccgaagg gaacaacttt gagtgttaact ggatggggcc cacgaangaa tgggggcca 480
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 at 542

<210> 1492
 <211> 542
 <212> DNA
 <213> Ctenocephalides felis

<400> 1492
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 atgtctgaaa caatataaaa taatattttc aacgctaacg cttaaataat tccaaaaca 120
 atcatgagt actattttct tttatgttaa cctctttacg caaagaaaat gtttataaac 180
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 aaagtctttt ccagttaaag tttgcacttt ggacgctgag ttagaattta atttggagt 480
 gaaagcgaca ggcaaagatt tattcgaatt agtttgccg acgattgggt acgagagacc 540
 tg 542

<210> 1493
 <211> 542
 <212> DNA
 <213> Ctenocephalides felis

<400> 1493
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 agatttcaca aattacataa aacgttttaa cagcgttcaa atacgttgct taaatttgca 180
 agaatatcaa agtaaaactc tacttcaaaa aagtggcggt gccgttcaag cctttagatt 240

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 tgggtgttcat ataacaaagg accctaaaga aatattgcca attgctaaaa atatgatggg 420
 tcacagactt attacaaaac aaacaaaagc tgaagggtata cttgtcaaaa agttatggtg 480
 cacaaagcgt tgacatttgc gggaaacata ttatgtatca tcatggcaga gctcatatgg 540
 cc 542

<210> 1494

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1494

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 cttcgatcaa agcgggtccag aagcacctgt cacactaaca ggatgcgtta gtggtttaag 180
 caaggggtgat cacgggtttcc acatccacga attcggtgac agcacaaatg gatgtatttc 240
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 acatgctgat cccgatgac ttggattagg tggatcatgaa cttagcaaga ccactggtaa 480
 tgctggagct cgattggcct gtggtgtatt ggaatctgca aaccttaatt taaaattgta 540
 tg 542

<210> 1495

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1495

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 tgggtggttcc ttgattgccaa aaaactgggt tttgactgca gctcattgca ttggagttaa 180
 caaatacaat gtccgtgtag gaagttccat cgtaaacagc ggtggtatct tgcataaagt 240
 taaaaaccat tacagacatc caaaatacaa cgcagctgct attgactttg attacgcact 300
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 aaatggacct tcaaccaatg ttttgcaaga agttcaagta ccacatgtcg accaaaccac 480
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 ca 542

<210> 1496

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1496

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tcaattctga acgaatattg ggttttgact gctgctcact gtttggttga tgacttcgac 180
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gaactccaag acttacactg tacataaanc acaacnatgt gtaagnaaca attntccagt 480
tacncagcac tttgannntt ggtgcagnga cnagccctnc accgtgactn tggtgncctt 540
gg

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<210> 1497

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1497

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taactccga gcgagtactg ggggtcctaa taggcactac aacgatggca atcgttataa 180
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aactccagtt ccagcgccag ctctgtttgc tacaactccc accaaagtaa aggagatga 420
accccccgcg caagagcccg ttcagaaacc agaagcaatg caagaagatg gtggagatgg 480
tgataacgat aaaaagcctg gaagaaaaac aaattgataa gtgaaaaact agcaacagcg 540
aa

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<210> 1498

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1498

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aatattttta ccagctgtta aacagttttt aagtaatgaa actatggatc tcattagatg 240
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ctctgcaag cagttaaaga tcttgagact aaaagaagat ctagaatcaa agcccccac 480
aactgcgaa atgtgaattg atataaagtn tttcattctt gngatatatt aacttgtttt 540
ga

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<210> 1499
<211> 542
<212> DNA
<213> Ctenocephalides felis

<400> 1499
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aaaggagaat ccaaaacctt cttccctgaa gaagtcagtt ccatgggtgtt gactaaaatg 420
aaggaaaccg ctgaagctta cttaggcaaa actgtgacca atgctgtcgt tactgncctg 480
ctacttcaat gactcacacg tcaagccacc aaggattcgg gactatctcg gtctaaatgt 540
gt 542

<210> 1500
<211> 542
<212> DNA
<213> Ctenocephalides felis

<400> 1500
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ca 542

<210> 1501
<211> 542
<212> DNA
<213> Ctenocephalides felis

<400> 1501
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aaccgaaaat tgcccttgta cctatctacc aaaaatacca ttctcaagaa atacgatggg 420
agatttaagg atatattcca ggaaatttat gacaagcaat acaagaaaga atatgaagct 480
gtggaatctg gtacgaacat cgactgatcg atgacatggg cgctacgcaa tgaaatcatc 540
tg 542

<210> 1502

<211> 537

<212> DNA

<213> *Ctenocephalides felis*

<400> 1502

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ttaaaattta attaaagtca gtgtagtggt aataaataaaa ttttggtatc aaattaagta 180
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gtaatggaaa tgagccatcg atcaaaagac tacatgaaaa tcaacgatga tacacaaaat 360
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cacaggatgt ttgcagccat accactgaat attttgaaga ctggagttgc agattatgtt 480
gttacagggt cttggtctgc aaaagctgca aagaagcacc aaattggnaa gtaacat 537

<210> 1503

<211> 542

<212> DNA

<213> *Ctenocephalides felis*

<400> 1503

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gtcctctggc gtgacgacga taggaaactc tttgttggtg gacttagttg ggaaacaact 180
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tg 542

<210> 1504

<211> 542

<212> DNA

<213> *Ctenocephalides felis*

05991936-12101

<400> 1504

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<210> 1505

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1505

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tctgacaaat gcagcacttg caattaaaaat gtatccaggt tttctagaca aaactaagga 480
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<210> 1506

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1506

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<210> 1507

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1507

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atgctgatgg taaatctgat gaagtatcac gcaagttggc cttcgttgaa gatgaacttg 300
aagtagctga agaccgtgtt aagggagggtg acagcaagat catggagttg gaagaagaat 360
tgaaggttgt aggaaactcc ttgaaatctt tagaagtatc cgaagaaaag gccaaacaaa 420
gagtagaaga attcaaacgc caattgaaga ctttgccgtc aaacacaagg aaccgaactc 480
gtgccgagtt cgccgaaaag accgtcaaga actgaaaagg agtcgcaggc tgaagacnat 540
tggcataaca
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<210> 1508

<211> 548

<212> DNA

<213> Ctenocephalides felis

<400> 1508

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tacctcaag ttctatgcag tttaattcgg gaggacctc catgggtcaa ataatacttt 480
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<210> 1509

<211> 405

<212> DNA

<213> Ctenocephalides felis

<400> 1509

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gatatttgtc aaatcaaata tggagatctt ctaccagcgg acggtttatt gatccagagt 180
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gagtccttcg acccgatggt cctgtcgggg acgcacgtca tggagggcag cggcaaaatg 300
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ctggtgacgg ccgtcggcgt caactcgcag gccggcatca tcttcacact gctgggtgct 360
gcagtcgacc aacaggaaca agagatcaaa aaaaaaaaaa aaaaa 405

<210> 1510

<211> 482

<212> DNA

<213> Ctenocephalides felis

<400> 1510

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caaattgtgc aagtcaggaa ccatggtgga actgccaatt accgctgtgc ttcacgtcct 180
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aaataattaa atattgaaat ttaatgaagt atctggattg tatatggtac tgcaatttgt 420
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<210> 1511

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1511

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gccatgcgat cacatttttg aaattgcttt ccattgcyg agagattcag gaaactacga 480
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<210> 1512

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1512

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gccggtccga tagcagaaag aatcaagat gccactattt atgttggtgg tttggacgat 180

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ggagtaattc ttcaaaccg aagatatgag ggatccaacc tgnaatcaaa gggtttgcac 540
cataaatttg 550

<210> 1513

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1513

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<210> 1514

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1514

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gtctgcatct cctctggaac gattgtcaaa aacagagacc atcgagttga gggacaaaca 180
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<210> 1515

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1515

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gtttttacac atcttccaaa tcctgtgcag ttttttttat ttgggaccac agtatataac 180
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cagaaaaaga gatgaaaaag agaagtatga tccaagtgga ttccgtgacg cagttatctc 300
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attgtagtgc cgggtggttc aatagcaca gatggagaaa agcccaaac cagtagttgt 480
gtctcacagc ttctgaggat atggagtcaa tgcgaaacca ggagcagggt tcgtgaatta 540
tgctcgctta 550

<210> 1516

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1516

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gttttaacct gcntcctgtg atgagcgcac ggtgaatgga aacgaagtat acattctaac 180
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gntcgtccct catcctcgtt atgatagccg cgatcaaaat tcaatgtagg ttttaattntg 420
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taagaaatct 550

<210> 1517

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1517

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gtaaaaaagt aaaatttagt tgctggaatt cgtgcagttc acccgaaatg cagtattgtc 180
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gtgacgaaaa tagtatagga acccaatatt attgccgca aattttgcat atgatccgtt 420
acgtcataat tgcggcctat ggctctgggc acaaaatgct atacagttac atgtctgcc 480
gcctaagggtg cttccgtaca ttggtgataa atattgacgt cgatgtatgg ccggaagagg 540

accgtangca

550

<210> 1518

<211> 550

<212> DNA

<213> *Ctenocephalides felis*

<400> 1518

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gatttgattt aataatttct tcaatagtag ttaagtatag agaaagatat ataatagaag 180
attttaataa aaatcgattt ttattattag tattaatatt tgtattttct ataataataa 240
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tggtagtga aattatttat tttatataaa atatataata aataatttga aataatttaa 480
ttatattttt gatttaattt ctgcaataac taaaagagca caaatccttt tcttcttggt 540
accagctgca 550

<210> 1519

<211> 550

<212> DNA

<213> *Ctenocephalides felis*

<400> 1519

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gctttttaca acttaaatg caatgagtaa ttgtgtcga atattatgga ttgcgatagt 180
gatcggttta ggtgtgttgt attacgaaat aactaaagaa tttccaaagc caaatatacc 240
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aaaacttgta gacttttggc gaactcaata caattggcgc gaacgtgaag cattattgaa 480
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gtctccaaaa 550

<210> 1520

<211> 550

<212> DNA

<213> *Ctenocephalides felis*

<400> 1520

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tgaccagtct tgcgttcagc attcacgacg gcctggcacg cgacgagaaa gatttaacga 240
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atagtcagca caatatgcgc ctgtatttat tagttcttcc attgttccaa ttaaagcttg 540
aaagaagatg 550

<210> 1521

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1521

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ttactatcgc gtgaactacg ataaggacaa ctggaaaaag cttgcagatg tcttgaaaaag 180
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tcgcataaat gctctaacat gggcttgnaa atggccttnc agatgcttgc agtctcatgt 540
cgcttntgct 550

<210> 1522

<211> 172

<212> DNA

<213> Ctenocephalides felis

<400> 1522

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cacttagatt atttcatttt aatcctaaac atcatttttg atttgaagca gcagcttgat 120
attgacattt tgttgatgta gtatgattat ttttatatat ttctatttac tg 172

<210> 1523

<211> 673

<212> DNA

<213> Ctenocephalides felis

<400> 1523

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caatggctga tatggaagat actcatttcg aaactggaga ctctggagct tcagcgacct 120
atcccatgca atgttctgca cttcgaaaaa atggttttgt aatgttaaaa tcccgccccg 180
tgtaaaattg tagaaatgct cacttccaaa actggtaaac atggtcatgc taaagttcac 240

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gtatctagtg tgttgctata aatctgcctc agcttggtan attatgcaaa atcagggttag 660
tctttgatat ttg
673

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<210> 1524

<211> 681

<212> DNA

<213> Ctenocephalides felis

<400> 1524

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<210> 1525

<211> 676

<212> DNA

<213> Ctenocephalides felis

<400> 1525

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676

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<210> 1526
<211> 647
<212> DNA
<213> Ctenocephalides felis

<400> 1526
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<210> 1527
<211> 540
<212> DNA
<213> Ctenocephalides felis

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<210> 1528
<211> 671
<212> DNA
<213> Ctenocephalides felis

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actatgaccg n 671

<210> 1529

<211> 667

<212> DNA

<213> Ctenocephalides felis

<400> 1529

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<210> 1530

<211> 670

<212> DNA

<213> Ctenocephalides felis

<400> 1530

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<210> 1531
 <211> 558
 <212> DNA
 <213> Ctenocephalides felis

<400> 1531
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 tatggagcaa gcattcattg gtgctgattt cacacaggcc tatgtatcct gngcttttgg 180
 gtattaagtc aaattggata ccgtcatgat ctgcttcgga gtagtcaacg caatttgntc 240
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 cttcctgcac atgggcctga tgattggatt attattctgg agaccaagcc ctgatgataa 360
 aatgatgttc tttgtcatgg ctggactttg gggagttggc gatgcagntt ggcagacaca 420
 aatcaatggc ctatacgga ctctgtcagg cggacnaaag aggcagcttt cttcaactac 480
 cgctgtggga aagcttaagg ttgtcatcgt tacgctacag cacacacttg tgcccggcat 540
 gaanttacgt caattgac 558

<210> 1532
 <211> 660
 <212> DNA
 <213> Ctenocephalides felis

<400> 1532
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 attctttatt ttccttttcc caatctttt ctaaaagcga gtgtgggtcat actgctgtgg 180
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 tcagaagaga gaggagtgtt ggttgccggt gtttattgta gttttaattt aattttaaac 300
 taagttatgc gtatgacca agacatggac gatgatgaaa agggaaagct tttcgtcgga 360
 gggctatcat gggagactac tcaggagaac ctgcagaggt tcttctcgag gtacggcgaa 420
 gtgatcgatt gcgtcgcatg aagaacagcg agtcggcagg tcgcgcggtc tcggcttcgt 480
 cacatttgnc gatccctcga acgtcacgtc gtctgcagaa tggccgactc cctggcgga 540
 gacttagatc aaacctgcac cccgcccctc agaccaaacg ggcgagctcc caagttcttg 600
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<210> 1533
 <211> 669
 <212> DNA
 <213> Ctenocephalides felis

<400> 1533
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 cagtacatga atttcatgtg tggcagttag ctggagatcg tatcattgcc tctgctcaca 120
 taaggtgtag aaatttatca gagtacatga aaattgcaga aagagttaag gaattctttc 180

ataatgaggg aattcattct actacaatac aaccagaatt tgtagaacta agaagtttat 240
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cggcctcacc ttttatgtgc aggcaacgag gagcaggtca acgagttcaa ggtggttctt 420
caggtccaaa cactggtgat ctagaaagtg gtcattgtta ggtggacatc caaccactca 480
gttggttcaa ttgcctctgg tctaattgtg ctgtccaaat caaataaaga atcttgtgct 540
gcacacatta tagcgcaaag tccctgccat cagttgctga tattctatat gcaaattttt 600
ataagaatag atggaattat gcagggagga nangtcatat gataattatt atcattatgt 660
ggactggat 669

<210> 1534

<211> 546

<212> DNA

<213> Ctenocephalides felis

<400> 1534

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attccgtgct atgtattctg taatcagaca aggaagtgat ggagtgaaca ttgcattaga 180
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aaaagttttc gaaactgtag gcgcagcaat ttcaaacgaa aaacaagaag aactgcttcg 300
tgaaattatt gctaaataca attctacatt ttcgattcc ctaatgcaag gtgcaaaaac 360
tgcttttagat gccatggaag ataataaaac ttggagagat aaaaatttag ctactgtgac 420
aaggtggttt gaaaaacagc ctgaagtta tcctaataat gcaacaaaac tagtccaaag 480
tatttattat tacttgattg tattcaatat tgattatatt taatatatac atcagntnctn 540
gaaaaa 546

<210> 1535

<211> 662

<212> DNA

<213> Ctenocephalides felis

<400> 1535

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ccccttatta atttttaaga aaactataat aattataatt acgattaatg aataaattta 180
aacaatgaag accggccagc aaaaaggagc agaatttttt tctcatgcct cctgcaatgc 240
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atgtgaggtt atcgacttgt ggatttaaat atactttctc ctttaataaa actcgtgctt 480
ttgcaattta tgatttgcta ttattagcta ttgatgnata aatctgtatg aattttgatc 540
cctcaataaa gaatttatat agtgactagc tctcagtttg aatttattat atcgtattgt 600
gcaaagccga ccatagttgc gactgactcn cgttctnttg tgctgacttg tattgctatn 660
ct 662

<210> 1536
 <211> 668
 <212> DNA
 <213> Ctenocephalides felis

<400> 1536
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 tagacaatta ccagtgaggaga aattagttta tataccttct gatgtaactc gcagcactgt 180
 tcaaaaatca gtttgtgttc taagcacctt acctttatat ggtcacattg agataaaaact 240
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 ggatgcatat cataatatga accaatgttt tggctcaa at gaaatttttag aaaaaataac 360
 tataggatta agtgtcagag attttagtgt gaggtggcgt cataaaatat tagttttatt 420
 taaattaata ttattggaaa aaaaggttgc atatttgggt caccagtaag gccattatgt 480
 ctagccctat taacttatta tctcttcac caatattata gacaaaggat tattgagtcg 540
 gcaatcagga cacttntata aaagaaaatt ctagtatatg caatcagata tatcatgcgg 600
 aaacagaatt aatatctctg atctaataca aatatgaatg tggaaagttt tgagatatct 668
 aaatgctg

<210> 1537
 <211> 620
 <212> DNA
 <213> Ctenocephalides felis

<400> 1537
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 aaaggtttcc tccttatgac tataagaaga aaggatacgg atttatcaat gcgttttttg 180
 attacacaac taagagattc aatgataaca caaaggttat tacagtggaa ggtccaccag 240
 ctgttggcaa aactgcattt gctaaagctt tggccgaaga tttagatatg aaatactttc 300
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 ataatagaaa tgtagcaaca atgcaaattg tgttatatat gaaaaaatat gaacaatatc 480
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 tgtttgtttt ctagaacctg gctagctggg tgttcgcagg actcgtcgat atttgaatag 600
 agcacacatc cagatgagca 620

<210> 1538
 <211> 557
 <212> DNA
 <213> Ctenocephalides felis

<400> 1538
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cgtttggtcg aagcttacgg tgttgtaaca gaatgtgata ttatgaatcg ttgtggcttt 180
 gtacatatgc agaccgaaga gatggctttt agcgcgattc aagcgttgaa taatactaca 240
 tttaatgggg ccacgataag tgtcgaaagg ggccgcatca aggaacgcgg atcaggtggg 300
 ggtcgtggag gcggtggccg cggcggtcga ggatttgag gacgaggagg tggatgaat 360
 cgtagtggg gaggacctgg gggatgcgt aatgggtggg gccccatggg aggtggcatg 420
 cgtcgtggag gcggtggccc aggacccatg cgtgggtggg gccgtgacat gaatcgtgga 480
 caccctattc tngtgatggg ggcgtggagg agatttggtg gcgagggctg gacccatgcc 540
 aatggttgnc gcgcgga 557

<210> 1539

<211> 556

<212> DNA

<213> Ctenocephalides felis

<400> 1539

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 gtttattggc attcgtggcg gctgaactaa tgtaaatgtt agttgaggcc aatgttattc 180
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 gctttacaag tggaacatat cttatatgat gtaaacgaac tcgctccaga tgccatgtcg 480
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<210> 1540

<211> 620

<212> DNA

<213> Ctenocephalides felis

<400> 1540

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 cttaaaccac agatgccatt tgggtgtaat ccggtattgg aggtcgacgg aaaggaactg 180
 caccagagtt tggcactttc gcgctatttg ggaaaacaat tcgggctcgg gggcaaaaat 240
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 ggcatttagc tcttggaaga ctaacttggg ccgctttggt tcgaggagtt atcgaatata 480
 tgagtttcat atctggaaca gatttccttg gaaattgcag gattcaagag tgctttaata 540
 tgtgcaattg ccgacgtgaa ggaatggctg caagaggcaa aactgttgta tgtcatttgg 600
 gaatttaaat aacattatac 620

<210> 1541

<211> 620
 <212> DNA
 <213> Ctenocephalides felis

<400> 1541
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 catttataat acgcagtttt taagtttttt ctggtgaatt tgaatatatt tgaagaaaat 180
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 ggcgcatttc tcaagagaca ctgtcaacag gccaggattt gctgagatgt tcttcaaadc 420
 ggcaagcgaa gagaggggaa atgccatgaa actcatgtct tacttgatga tgagaggaga 480
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 cagacatatg gactatgata 620

<210> 1542
 <211> 591
 <212> DNA
 <213> Ctenocephalides felis

<400> 1542
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 aaagccgtca agcgcagcgg atctaacgtt ttctccatgt tctcacaaaa gcaggtagct 180
 gaattcaaaag aagccttcca gctaattgac cagacaaaag atggtatcat tggaaagaac 240
 gatcttcgtg ccactttcga cgaattgggc cgtttggtac aagagaaaaga actcgacgac 300
 atgatcggtg aggcctcagg accaatcaac ttcacccaat tggtgacctt gttcgccaac 360
 cgcattgtctg gatcagggtg tactgatgat gatgatgttg tcatcaacgc cttcaagacc 420
 ttcgacaacg acggcaaaat cgacagtgc aggttacgtc atgccctcat gactggggag 480
 ataaattcac tgccaagaag tgtgacgctc gaccaatggt catgccataa gcttcattgt 540
 cccagaacta tccaatgtgc tgcgtgcgag aaacaanagn gngatataga a 591

<210> 1543
 <211> 554
 <212> DNA
 <213> Ctenocephalides felis

<400> 1543
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gtcatgggtg agattttctc tgcgacgtta aaggagctgc ttgcagccta acagtcacgc 420
cagctgggtcc ctcgctcttc tggctactaa agtattcccc acatgaggga gacttttagga 480
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<210> 1544

<211> 604

<212> DNA

<213> Ctenocephalides felis

<400> 1544

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gaatgtggtt gagcaaagtg ccgaaacaaa agctattgcc gaagaagatg atgttaagga 180
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gttgggacat gtagatctgg aaaacaaaaa ttttgcaata ctcnacaaat gtcaagatgg 540
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<210> 1545

<211> 608

<212> DNA

<213> Ctenocephalides felis

<400> 1545

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catgccctgc tcctacaaag gtagaagaag ccgatagtgc tgaaagagat ttggtcaact 180
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aagttaaaag ttaccaagat gccattgaag gagaaaagtt ggacaatgga gactgaaggc 540
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<210> 1546

<211> 595

<212> DNA

<213> Ctenocephalides felis

09991936-112101

<400> 1546

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<210> 1547

<211> 595

<212> DNA

<213> *Ctenocephalides felis*

<400> 1547

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ggtacattcc taatatctgg attgtttttg ccatcgtttt atgggaagga cttctaggag 180
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<210> 1548

<211> 653

<212> DNA

<213> *Ctenocephalides felis*

<400> 1548

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ggaccctttt anggaggatg tgcgtctgtg caggcataga atntagaaat tggatcgtgg 600

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653

<210> 1549

<211> 553

<212> DNA

<213> Ctenocephalides felis

<400> 1549

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aaaaaaaaaaa aaa 553

<210> 1550

<211> 661

<212> DNA

<213> Ctenocephalides felis

<400> 1550

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tggtggaaga gtctcggtc aacaaccggt gtcttgcgga cccgaagccg cgatagaata 600
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g 661

<210> 1551

<211> 671

<212> DNA

<213> Ctenocephalides felis

<400> 1551

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tctgtagtgc acgatcgagt aaaatatcta ccgtgacttt atgctgatta ttttaatagt 540
catttttctg gactgtcgcg tctggctaca tgagcagaga taagttgaaa tagcattact 600
ctgtgataga accgtttaaa aagtcaattn ccgatccgaa catgacagaa gttatatagg 660
aattgtgcaa t 671

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<210> 1552

<211> 611

<212> DNA

<213> Ctenocephalides felis

<400> 1552

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atagtgccga gataacagtt gtgaagaaaa cgctgaaaca gaaaataata catgaacttc 180
tacattacta ccatggtttt cgaactttt tcatcgattt aaatgtatcc agaaaattaa 240
tatggcgagt tctgaatgga aaccagttga ccaggaggga acatagattg ctagtggaga 300
ccactgctga tcttttcaga cttctgccat tttctgtgtt cattattgtg ctttttatgg 360
aattactgct gcagttgcc ttaactatt ccagggaatg ttgcatcgac cttcaaactg 420
cccagagaga gaggataaat tgaaacaaag tttgaaggta aaactagaga tggctaaatt 480
tctgacggaa acattagacg acatgactct acacacaaag atcacagatc agaattggct 540
aaagagttca attgggttac gaaatgagac agctgcctca gcnntacgaa gaatcatgaa 600
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<210> 1553

<211> 566

<212> DNA

<213> Ctenocephalides felis

<400> 1553

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tatctacaag agcaggtggg ctaggaatta atttaactgc agctgatact gtgattatac 120
atgatattga cttaaatcca tacaatgata aacaagccga agacagatgc cacagaatgg 180
gccaaaagcg gccagtaact atttatagat taattagtaa aggaactatt gaagagggtg 240
tgcttcaagt tgctagagaa aaacttaatt tggagagaga agtcaccact aacacggaga 300
atgatcctca agaagtaaaa aatgttgtgc gattactcac actagcgctg ggcgctgatt 360
caaataaagc tgccaatctt ttaactccat cgcgagaaaa tcggaatcct aattgcaaaa 420
gccgctatta tttagcacac attatgaatt ttgatctttt aaatttatta gttaattgat 480
gattatttaa aaatataggt atttttatat aatttatgaa ttactgcagc gccaaataaa 540
tccgtttact ctaaaaaaaa aaaaaa 566

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<210> 1554
 <211> 585
 <212> DNA
 <213> Ctenocephalides felis

<400> 1554
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 caaggctaac gccgaggccc agaagaacat caagcggttac caacaacaac ttaaggatgt 180
 acaaaccgcc ttgaggaaga acaacgtgca cgtgatgatg cccgtgaaca acttggcatt 240
 tctgaacgcc gtgccaatgc tctccaaaac gaattggaag aatcccgtac cttattggag 300
 caagccgaca gaggccgccg ccaagccgaa caagaattgg gagatgctca cgagcaattg 360
 aacgaacttt ccgcacaaaa cgcttcagta tctgctgcaa gaggaaattg gaatccgaat 420
 tgcaaacctt gcattctgac ttggacgaac tctcaatgaa gccaagactc agaagaaaaa 480
 gcaagaaggc atggttgacg cagctagggt ggtgtgaact ccgcctgaca agacntgccc 540
 aaaccaaga gaactcagaa aggtcttgaa cacaataaag aattg 585

<210> 1555
 <211> 612
 <212> DNA
 <213> Ctenocephalides felis

<400> 1555
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 tgcacattaa caaaaataag cagaacaact attaaaaata tgttttccat gtcaaaccct 120
 ttctaaaaac cattcaatgc atagaaatgt aattttttaa atcaatagta tgatttttta 180
 aaatatattg ttttatacca ggagtggact actgaatttc tgcaagtgtg ctatggctct 240
 caatgatcta gggtagaaa ctgttggtat acgaatagac tctggtgatt tagcatatct 300
 ctcaagtctg gccagagaaa catttgagag gatagcagag aaatacaaca ttccttggtt 360
 tgcaagactc atgataattg catcaaatga tatcaatgaa gacacaatac tcagtctcaa 420
 tgaacaggga cacaaaatag attgttttgg aattgggacg catttagtta catgtcaaag 480
 gcaccagcac ttgttggtgc taaaaaatgg tagaaataaa tggacacctc gaataaactc 540
 agccagatgt gctaagtaca tgccagtcgn agatgcctat cgttatatgg nagatggcat 600
 gccctatgct gc 612

<210> 1556
 <211> 613
 <212> DNA
 <213> Ctenocephalides felis

<400> 1556
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 cacaaagatt ggcaacgttt tgtgaaaact tggtttaacc agcccgaag gaaaattcga 120
 agacgtcaaa acaggattaa aaaagctcgt gccttggtcc ctgctcctgc tgctggggcc 180

ctcagaccaa ttgtgcattg cccacagtg cgataccaca ctaaggttcg agctggcaga 240
ggttttaccc tcgaagaaat caggggagca ggtttgaatg caggatttgc tcgctcgatt 300
ggcattgcat tagatgtag acgtcgtaat aaatctgtag aatctttaca acagaatata 360
caaagattaa aggaatacag atctaaattg atcttggtcc caagagggtg aaagaaattg 420
cataaggggtg aagcaactga agaggaatgc aaggttgcatt ctcaattaga aggcgtcggtg 480
atgccaatta aacaaacttc agttaaatct aaagtcgtgt cattctgaag atgaaaagaa 540
attctagctt tccacttaa gaaaggctgt ctgtcagcgc tgggtggtttc gtgaaaagga 600
gtaaagatca ntg 613

<210> 1557

<211> 659

<212> DNA

<213> Ctenocephalides felis

<400> 1557

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aatgaaatta gttaggtttc ttatgaaatt atcacacgaa acagtgtcga tagaattgaa 180
aaatggaact caagtaaattg gaacaataac tggcgtggat gttgccatga atacgcattt 240
gaaagctgtc aaaatgacta ttaaagatcg agatccagta tttcttgata ctataagttt 300
gagagggaat aatattaggt actatattct cccagatagt ttaccattgg agaccctttt 360
gatagatgat acacccaaag ccaaagctag aaagaaggaa gcagctcgag gtggaatacg 420
aggaaggggt cgtggctgtg gtggcccaga ggcggctgtg gaggtggtag gggacgtgga 480
cgaagataat aatatttttg attgtaagct attataatca ttgaacattg gctcatagga 540
aggctatcaa tttgatgtat aatgtatttg atcaacaaga atttangttg atccattttt 600
aaccaatttt nttgtggcta atcagtttga gtcgatcata ttctgatgtt atatgaaga 659

<210> 1558

<211> 564

<212> DNA

<213> Ctenocephalides felis

<400> 1558

gtactttgct ttcatttttt tcattatttt caagagcaat ggctgaagca cgcgaaagaa 60
ctttcattat ggtgaaaccc gatggcgtcc aaaggggttt ggtaggaaaa atcatcaaac 120
gattcgaaaag ctaaagggat tcaaacttgt agcaatgaaa ttcattgtggc catcagagga 180
gctcttgaag aaacactatg ccgatntttc ttgccagacc ttnttttctt ggactagtta 240
aatacatgag ctctggccct gttgtcccca tggctctggga aggcactaat gttgnaaaaa 300
ctgggtccgtg ttatgttagg agctacaaat ccagctgact cgaccccgagg aaccatccga 360
ggagatctct gtgtggaagt tgccgcaata ttctccatgg atcagatggg gtagaaagt 420
ccaagaagga aattgcttat ggtcactgaa aaggaagtaa tctctgaccc cagctcatga 480
atcatggttt atgaataatg gtgataattt ngattttggn taanctgatt aaaaaanta 540
tgtgaataaa aaaanaaaaa aaaa 564

<210> 1559

<211> 617
 <212> DNA
 <213> Ctenocephalides felis

<400> 1559
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 atcgttgag gcaaagacac cacaattcaa gaacatcctt accaagtatc aattttgtac 120
 aatgatgaat atcacagctg tggaggttct ttgatttctg aaaaatgggt ttgacagcc 180
 gggcattgca tcgattcttt caaattctac atccgtgtgg gaagttctct tgaaggcgaa 240
 ggtggagctg tgcacgagc tctaaaacaa tatcgacatg aaaagtttga tgcaaaaact 300
 gtagattatg attatggatt aattgagtta gacacaccgg tacaacttag tgaaaatgta 360
 aaattagtca aattggctga acctgggtgt gaacttgaag aaggaactct actaaatgtc 420
 acgggatggg gtagccgcga tccagcgcac tctcaaatag taactgacca tatgtatccc 480
 aagaagttgc aaaaatacat tcagacaggt gatctcccat atatgttctg tntggtaa 540
 gcangannga agactgcatg gnacttggtg gcngtgatca atggatccat tggatggttc 600
 tgagcttgtg gcctacc 617

<210> 1560
 <211> 659
 <212> DNA
 <213> Ctenocephalides felis

<400> 1560
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 ctgctacaga tgtaacatca cacttagatt tggcgatggg atgtagaagg gataatacca 120
 ccacagttga ttgctcagga aaaggaactt gtgtatgtgg tgtttgtgaa tgcgaacagc 180
 gtgccaatat cgaagaacaa atctccggca aatattgcga atgcgataac ttctcctgcg 240
 accgtcataa tggatatttta tgctctggtc cagaacatgg tgtttgtgtc tgcggtcagt 300
 gcgactgtct gccggctgg accggccctg cttgcgattg tagagatacc aatgctacat 360
 gtatcgctcc aggatccaca gggaagaaa tgtgctctgg acacggagtt tgtgaatgcg 420
 gagtttgcaa gtgtgatgtt gctgaggatg gcagatatc aggaagatct gcgagaagtg 480
 tctacttgt cagccgtgca ggagttcaaa gaatgtgtta tgtgtcaaat gtataaaact 540
 ggccctcaca gaagagaatg cggaaattga catctccatc gtcaagatna gtgaactgtg 600
 aagtaagata cattatgtct ctccacgaaa catgccattn atctttntca caaaagcaa 659

<210> 1561
 <211> 662
 <212> DNA
 <213> Ctenocephalides felis

<400> 1561
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 gctgctccag ttggcaaatt acgtttcagg cctccacaaa aaccagaatc atggagtgg 180
 gttcgtcaag cactgaaca aggcagtga tgttcacga aacatatgct tttgcaacac 240
 cctataggaa ccgaagattg tctctttgca aatgtctata ttcccaaac tgatgccaaa 300

aagcctcttc ctgtcatggt ttgggttcat ggaggaggtt ttgtcatggg atcaggaaat 360
 actgacatgt atggctcctga ttatctcatg gactacgatg ttatcctggc accttcaact 420
 atcgtctcgg agttctggga tttttgaatt tagatttgga agaattgtctg gaaatgtcgg 480
 actaatggat caggttgctg ctctcaaatg gcaaaacaaa acattgcaag tttggtggtg 540
 atcaaacaca ttctattttg gagaatctgt gtggtgcagc tacattatta gttgctgatc 600
 tacagaggtt gtccaaaagc atgncaagtg aggcttaaat catgcttcac gcncaactaag 660
 an 662

<210> 1562

<211> 655

<212> DNA

<213> Ctenocephalides felis

<400> 1562

gaatntgcta ctttacaagc cgctattgaa gcaatcagtt caatgaacat gtttgaccta 60
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 acaactggat ctatgatgcc gactgctgct gctgttgccg cagctgccgc cacagctaaa 180
 attcaagcga tggatgcagt tgctagtaat gctgtcgtt tggggctgcc gagtttgagt 240
 tcttcaccta caattccgtt atcagtgccg acgatagcgg tgccgcccac cgcaacgata 300
 acgccatcag ctcccgttgc tatatccggt gctgttaagt taccaggtgt cgtcataccg 360
 cgcaggtgtc gtcgtacctc aagtcataca gcctccagga attgtgacgc cgacatcgca 420
 accagttata attccagtat cagtattacc taattgtgaa tcttctccga cgatgatata 480
 aacaagctca cctgcacaca gccgatcaca atactacaca gaacaatgaa gccagaatgg 540
 ccaagaacnc acaagagact tnaaaaaact atagatgaac tgaccaact tacagacaag 600
 aacatgtgct aaggnaaagn nncgcctatn tcaagntatg aagangatca ctnta 655

<210> 1563

<211> 651

<212> DNA

<213> Ctenocephalides felis

<400> 1563

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 gctgcttcag caattccctt tattattttt accgtccttt ggggtatagt ggggtgctgt 120
 ttacctttta tagtgccaaa aggaccaaac agggggattg tgcaagtcgt tttgatattg 180
 acagcagctt gttgctggct cttctggctc tgctgctaca tggcccaaat gaaccccta 240
 ataggacca aactacacca gaacacgatt ttattgatgg caagagaatg gggaaatcca 300
 atcagcgatt tgtaatttag tcaaccaaca ttcctgaata tcttctgata taaaatttca 360
 tactgtgtga tgatgataaa tgaagataat atgatttaca tttcacataa atgtgtacat 420
 ataattttta gaacaagtta ttaatttgcg tgattgtata tagatatttt atgagaacta 480
 ttcggtgtag caaatatatg tgctcctggga gaaaaatnnn nnnnnnnnnn nntnnttnt 540
 ntntnnnnnn tggggggggc cgccccatc cntaagggg ggtttaaata ncggcggtt 600
 tnnccgggga tgggaaacct ggttnccaat antgcttgan antccnttn c 651

<210> 1564

<211> 664
 <212> DNA
 <213> Ctenocephalides felis

<400> 1564
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 ccctgtgatc caggatgtga ttttccatt caaaatttac catacggcgt attttcgaca 120
 cgggcaaadc ctgtgcacag aattggagtt gccattggag ctctcgtatt agatttgagt 180
 ggagtattgc attttttcaa accagaatat cagaatgcgc ttagtgccac aactctcaac 240
 ccattgatgg gcttagaaaa atctgattgg aaacaaatta gggagaccat acaaaaattg 300
 ctggttgaag gttcggaaact tcacagaaat gaagaactcc aacaaaaagt attgcttcca 360
 caagcgtcat gcatcatgca cttaccagct actattggag actataccga tttctattct 420
 agcatacatc atgccaccaa tgttgaaca atgtttaggg gaaaagataa tgctttaatg 480
 cccaactgga aatatttncg gtggatatca cggtcgcgca agctcagttg tgctctggac 540
 tgtatccgaa gaccatggga caactttaca gtgtggactg acccatttgg ccttnagnct 600
 atgatttgac tgaagngant tttgagtga agcacaaatg gtcaagagcn gtgcaatcta 660
 nann 664

<210> 1565
 <211> 664
 <212> DNA
 <213> Ctenocephalides felis

<400> 1565
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 cttgggtcta aaaatggcct tatcgacaaa aaatatcgct ggcccaaaaa cgaagtgcct 180
 tacgttattg taggaggata cttcaatcga agtcaaatta attacattca taaggctgtt 240
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 tatgttcaaa tcacgggtct tccaggcggg tggtattcta gtgtcggatt ccaagatgga 360
 gtccagaccc ttaatttagc accatacgaa attgagaaag ggtgcttccg taaagcgact 420
 attcagcacg aatttctgca cgctttaggg tctatcacca gcaatcgact cacgacaggg 480
 acgaatacgt gaccatcatg tgggacaata ttttgcaaac actgaccact taacaaatat 540
 acggtagtcc gtcaggattc gaaccggtat gctattggcg tatgcntacg ggcttcggtc 600
 tcgaaacngg aagacttcgc acaagancac gtgnagatnc atggcaaggt gagatatgan 660
 tcat 664

<210> 1566
 <211> 662
 <212> DNA
 <213> Ctenocephalides felis

<400> 1566
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 agatggcagc gtctcctggg agactccgt gctcgcaaga cccgtttgct ggacatgcaa 120
 gaacagttca gacagatcga ggaattatat ttgacattcg caaagaaggc atcagctttc 180

05994936-112101

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aattcctggt tgcgagaatgc cgaagaagat ctcacagatc ctgtcaggtg caactcgatt 240
gaggaaatcc gtgccctgag ggaggctcat gcacagttcc aggcttcttt gtcgtctgca 300
caggctgatt ttgaagccct ggcagccctt gatcgccaaa tcaagacgtt caatgttggc 360
cgaatcctta cacctgggtc accatggagg ctctcgaaga cacctggagg aacttgcaga 420
agataattgc tgaacgtgat actgaacttg ctaaagaagc tcaacgacaa gacgaaaatg 480
ataaattgag gaaagagttt gcaggaccca tgctttcata atggtgccga gactagaact 540
caatgatgga aggtccggtt tntcgacaga attggagncc ttcnagaagg tacaaaagttc 600
ngccaaagag tgttgagcga atgaaaatgg tntnctggag acttnttgna caattcnact 660
tc 662

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<210> 1567

<211> 648

<212> DNA

<213> Ctenocephalides felis

<400> 1567

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tgaacaagaa tatttattgg tttaatttca aaaacattct gattntcata tattttattt 120
atttcattta ttggaggaat attaattcta tttatttata taacaagaat tccaaatact 180
gaatattttt ctttaaatat tnataaaaact atttttatta ttttattatt aacattaaga 240
attattattt attataataa aaatttttcta ttaattttta acaataattc catattttaat 300
gattttaatt caaacttact tatatataat tttaatctaa ataaattata taattttcca 360
aataatttat taactattat attaattatt tattttattaa ttccattaat ttgngaggta 420
aaattcagat attttttatg gcctttacga aaaaatttta aaaaaaaaaa aaaaaaaaaa 480
tcgngggggg gccgggcccc atcgccctaag gggtcggttc aatcctgggc ggggttacacg 540
cggctgggaa cccgggttnc cacttatcgg ctgggncatc ccttngcagt ggggtatagcg 600
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<210> 1568

<211> 661

<212> DNA

<213> Ctenocephalides felis

<400> 1568

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caaaatgggt tacttttatt gtatatcact tttatgcctg ttactatag ttagctgtaa 120
taccggatta gatcctaaag gtccaaaagt tactcatgag gtatactttg acatcagcat 180
tggtggtgaa cctgcaggcc cgtgttttga tcggcctttt cgggggcact gtacccaaaa 240
cagttgaaaa tttcgtagaa ttgtccaaga aacctaaagg tgaaggatac aaaggcagta 300
aattccacag ggtcatcaag gacttcatga ttcaagggtg tgacttcacc aggggagatg 360
gaactggagg cgtcaattt atggagaacg ttttgctgat gaaaacttta agttgaagca 420
ttatgggtgct ggatgggtgc catggcaaat gctggcaaaag acctatggat ctnaattttt 480
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gtgngaggaa atgatcacat cacagattca aaacaacccc actgtgtgaa tttagacttg 600
ngtnactggt ntaacctcgg gggtaagaat cactaataaa gattntcttt gtatttttat 660
n 661

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<210> 1569

<211> 941

<212> DNA

<213> Ctenocephalides felis

<400> 1569

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tgtaggagc ttaaaccogag gtggagttgc aagaatgtca actggacagt acggtgatgg 180
tgctggcaaa ggaggtggtg gtggtggatc catccgtgaa gcaggtggat ctttcggcag 240
aatggaagct gctagagaag aagaattctt ttataaacag caacaagccc aattgaagaa 300
acttaaggaa caagcaatag atcagaaaac tttccatgag gaacaattaa aacttcacaa 360
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atatatagca ttatgaaaat gttagacagt gatnaaaatt caaatatttg ntctattact 480
gaattaataa acttgcatga agcttctata agttattagt tttctagcat cttaatatac 540
tcattgncac tacatatagt tttaaattca ttgngctat gcatgtattg gactaaatat 600
tggaaataat ccataacaat ttttttgnga aaaaaaaaaa aaaaaaactc ggnggggggg 660
gccccgaccc caattcnccc tntaggggng tcnattacna atcactgggc cgcggtttta 720
caacgtnnngn gactgggnaa accctggggg tancccaact tantcccttg gaaaacantc 780
cccttttnnc aagtnggggt aaaaccnaaa aggcccnnc cattnccctt tccaacaatt 840
tgccccctg aantggggaa tggcaattng aaccttttt tttttgtaaa attccgttaa 900
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<210> 1570

<211> 931

<212> DNA

<213> Ctenocephalides felis

<400> 1570

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ttaatctgct gaagaatttt acgaagacta attagtttta aatctacagt atggatgtgt 180
tgaataggcc cgctcacgaa tttggaaatg atgaaacagt tgaaacttta tgggctatga 240
aagccatgga tcatgttatt gtctatttta atgtacattt attaaaatat ttatcttcaa 300
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aaatttctca aaatgtgccc ccaagatgaa attatctacc attgttttcg tcaagaattt 420
ccagatatgg atgttaaagt ctagatgaaa attcattaaa aggctataca ggaaaatgcc 480
gatggagaga attttgtaga cgattcaaac atatagaaga ttcagttttg gtccttaata 540
cgcttagatt gcacattgga ttatagtcca gaaaatacta ttttagttnc aagagtcagt 600
ttatgccata gaatctgctc gaaataaaga aggccttaat gactgnatca gaaaaaata 660
tgctaagtga agtgatgtgc gagtaatgaa aatgtaaatc catagaaaat aattagcatg 720
ggtatggtta aaaagtncat gaaaaaaaaa nggggtttta tnttttttn tntttaataa 780
angatttttt caaaaaaaaaa aannnnnnnn nnnnnncctt gggggggggc ccgggcccaa 840
ttccccctnt angngngngn ttnnaaatc actgggcggg gttttnaacg gngggaangg 900
gaaaaccctg gggtacccaa ttaatnctg n 931
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<210> 1571
 <211> 942
 <212> DNA
 <213> Ctenocephalides felis

<400> 1571
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 gtcaaaacct nggcggaccg acaatgaagt tcctttactg ttattcctgt ggttacagga 180
 aagtctttga agactacatc ggcacatccc aacaaaagta ccccgaaatc aggatagacg 240
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 aaatggcttt aatcatctgc gtcttgacca gagtcaatct attccgctac ctcggttag 360
 aagagcccac gtggtggacc tgggtgcctcg agaacaaaat gtactcctgc atgatgttct 420
 tcttcttggc aaacacgata gagggacagc tgggtgtcttc aggtgcgttt gagatttctt 480
 taaacgatgt ccggttggtc ccaagttgga aacgggaaga ataccttnac cccagagtt 540
 gttcagatta tagataatca tatgaatatg gttggctgnt aaagtcgant ttaaaccgga 600
 gttttngaa atgaataatt atgggttaat aacaccgttt gntattttga atttttgggt 660
 aaaccaaactn aaatngnaat tttttctagg gttggtttcc attccangga ttntaaatta 720
 aaacctgnaa ccttcnntan tatatatatt tgaagangng nttgatgnag aaattatttn 780
 attaccttta atggatattt aanaaaaaan gggggtataa attttanttt ttntttggga 840
 aaancnanat annanantnt ttatngnggg gggggncctg nccccatttn cctnaggng 900
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<210> 1572
 <211> 918
 <212> DNA
 <213> Ctenocephalides felis

<400> 1572
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 tggccgcaag gaagaaattc attttgataa aatcacttca aggattcaaa agctatgtta 180
 cggattgaac atggattttg tagaccctgt ctcaataaca ttaaaagtca taaatggatt 240
 atatactgga gttacaactc aagaacttga taatctggcc gcagaaactg ctgctaccat 300
 gacaacaaat catgctgatt atgccgttct tgcagcacga atagctgttt caaacttgca 360
 caaagaaaca aagaaacaat tttcagatgt catggatgat ttgtcaatat gactaatgag 420
 tataactaaa agagatcacc aatgatagca gattatcatc ataaaataat aatggataat 480
 gcagatcgca ttaactctgc tattatttat gatagagaat tcagntacaa ttactttggg 540
 ttcagacatt ggagcgtctt atttantaaa aattatggga aaagtagttg gacnaccoca 600
 catatgctaa tgcggtagct ntttggaatc attggggaaa acnntggtgc ngcaattgat 660
 ccctttactt antttctgga aaaaatttta ctcatgccna gccacatttt ttgttgtgcc 720
 ccnccnanct caattatnaa gtggnntttc ttgctttcca naanaangtt ttganggggt 780
 ttgntcttta aaccaagnng ntttttattc naaaatgggg gnggggtttg gngaccctt 840
 tttggttttn gggaaaaacc ttctttgggg gacccaaggg atttttaagg gnttngtcnt 900
 tcnccggttt naaanaan 918

<210> 1573
 <211> 922
 <212> DNA
 <213> Ctenocephalides felis

<400> 1573
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 cttattagaa gtgtcatatt gcaggagcga tctggaaaaa atacctacga ccacgattcc 180
 ttaacattgc aatataaatt agacaatgaa tttgagctgg tgtttgtggt tgcctttcag 240
 aaaattttgc aactgtcata cgttgataaa tttttaaatg atgtacattt agagttttaga 300
 gataagtata agaatgactt acaaaataaa aggtattttc aagaatttga ctttggtgct 360
 tggtataaca gtattctgcg ggcggctgaa gaatggggtc ggactcaggc taagttacct 420
 aaacaaatgc gttcttttga agattctatg aaatctaaaa agacagttgc ttcaatgatt 480
 gaaagaaagg gcgagggaaa aaaagacccc agaagaatgg taaacaaaaa ngcaaaaatg 540
 gttggtttga tgaagaaaaa attaatactt aaactgggtat tggaccogng ccaaccaata 600
 attccaaaag nggtgatcca atgattaatc atgccaaatc gatgggaact tgcncaaaaa 660
 atgggggcct nttaaaaaaa aaaaaaaaaac ttgngggggg gcccggngccc aattcccctn 720
 tagggaggcg antacaaata actggccgcg gtttanacgc ggggaatggga aaacctggng 780
 ttncccannt aatngcttgg aganattccc ttttncaagt ggggtaaaaa caaaaggccc 840
 caccnatgcc ctttcnaaaa ttggccnnt gaangggaaa ggnaaaatnt aacggttaant 900
 tttttaaaaa tccggtnaan tt 922

<210> 1574
 <211> 943
 <212> DNA
 <213> Ctenocephalides felis

<400> 1574
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 tgaaaaagat gaaagtgatg aagatgaacc acaggtttta tcagaagtta caattgaggg 240
 tgtggttgaa tatattaaaa gtggaaaatg taaaaatata ataacaatgg ttggagcagg 300
 aatttctacg tcagccggtg taccagattt tcgatcacca aactctggcc tttatgataa 360
 tttacaaaag tataacctgc ctgatccaca agctattttt gatattgatt actttagtga 420
 aaatcccaag ccattttttt ccttagcaaa agagttatac cctggtaatt ttcggcctac 480
 aatttgccat tattttatta aactattgaa tgaaaagaaa ttggtattaa gacattatac 540
 tcagaatata gatacttttg agagagtatc tggattagat gaagataaat ggtagangct 600
 catggttcat ctacaaatca catgtatcgg tgnaggaaaag aatatnccct ggggtgatga 660
 aaaaaaatn tttntgatg agaattccac ttgnacatgc cggagaaaag ggtcaagcct 720
 ggatataccg tctttggnga aaatttgcca naaagggttca ttggctaata aaanaagact 780
 tcacccaaag ngccttggtt aanaatcatg gganccgctt tgggtgtcaa acctttgctt 840
 ccttggtatg antgggatc ggaacntggc ctaaactttt gattaaatta aaaaaaangg 900
 ggggaanggg gntaaaagg tccaatggtg ggttnttaa ang 943

<210> 1575
 <211> 931
 <212> DNA
 <213> Ctenocephalides felis

<400> 1575
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 tgctgtacgt gatatacagg aggtttctgt ttattccgct tacgtcttac ctaagttgta 180
 cgctaagtta cactactgcg ttctctgccc tattcactct aaggtagttc gcaatcgctc 240
 taaggaagat cgtcgcatta ggactccacc agtgagatca ttcccaagag ataatacaag 300
 gcaacaaaaat gctccaagaa agtaaatgtt catattttaa ataaaaaaaa cgacaactta 360
 aaaaaaaaaa aaaaaaaaaa aaaaaaannc ctnggggggg ggcccggccc caattcnccc 420
 tatagnagat cgtntttaca ttactggccc gccgttttac aacgtcggga ctgggaaaac 480
 cctggcggtta cccaacttaa tcgccttgna gcacatcccn ttctgccagn tggcgtatag 540
 cgaaaaggnc cgcccgatcg cccttccaac agttgcncag ccttgaatgg ngaatggcaa 600
 attggaagcg ttatatattng tnaaaaatcn cgtnaaatTT tgtnaaacaa cttntttttt 660
 taaccaatng gccngaantc gggaaaatcc ttttaaanaa aaanaaaaaan ccggataggg 720
 ttgggggtnt tccctttngg aanaaaantc cnttttttaa naacgggggn ctccacctna 780
 aaggggnaaa acctttttta nggngaangc ccctcgggna ccntnccccct aatnaatttt 840
 ttngggncng gggcccnaaa nccttaaatg gnancctaan gggnccccct ttaaaatttg 900
 cngggnaaac ccgcaaccgg ngaaaaaagg a 931

<210> 1576
 <211> 907
 <212> DNA
 <213> Ctenocephalides felis

<400> 1576
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 ttataattaa aaatggctct gcaaagcttg aaagggtttt ctaaattggt aaacaaatgt 180
 tcgaatcgtg ttcatatatt aactgtaaga tgtgcatctc aatattatga catagatgat 240
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 cagaaagaat tagcacctaa agcagctgaa attgataaaa ataatacctt taaagaactg 360
 agagagttct ggagaaaatt aggagacttg ggaacattag gaataactgc tccagcagaa 420
 tacggtggaa cagaaggcac atatttagat catgttatta ttatggaaga attatcaaga 480
 gcttcggggag ctattgccct ctcatatgga gtcattcta atctagcaat aaatcaaatt 540
 cgaaggaatg gaactgatga gcaaaaagcg aaatatttgn ctaacttttg tctggtgaac 600
 atatcgggct ctagcatgtc tgacctggtc tggacagact agttcctntga actaagagcn 660
 gagaggaagg ngattttttg tttcaaggga ataatttggg atactaaggn ccaannctga 720
 acttaanggt tatgccctnc catccaatgt aaagcctcac atggaattcc gcnttttttg 780
 anaaaaaggt ttganggatt aatnctggcc aaaattgggt aacttggaan ggaggtcaat 840
 tccngtgacc tgntttcaaa actgaaggtn cccccnaan tttttngnga aaaggnaang 900
 ggtttttt 907

<210> 1579
 <211> 919
 <212> DNA
 <213> Ctenocephalides felis

<400> 1579
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 aaagcagctg taccaattgg aaagaaagct gaaagtgata aagataaata agcacaaaaa 180
 attatattta tataataatg tggatattta attgtatagc gatatacata actcttcaaa 240
 cataaccaca ccctttttta caataattaa atcaactaaa tatgaaatat atattatata 300
 tgttcgattg tttggacata tcgaaagcta tatgtgaata ttgcaaatcg aattgatttg 360
 tagtatatat ggaatcaatt ttttttcatt atgaaccaat tcgatagatt tatagaaagc 420
 ctttttattt taaatattta catttgacac taaaaatagg tatcttataa aaaaatttca 480
 tttatacat ataatatgtc tcatatataa tatttattat acattctttt aaagaaatat 540
 gttaaagggt tgnaaaatat tacttttttag tattagggtc tattcaaaaa ttggttggtg 600
 ggaattattt ttggnattgg cggtaaattt tttttttaa taatatgcaa ttctcatcct 660
 tgnctttaag aataatnttt taaatatgga ttggtnaaaa gtaangtatg aattttactt 720
 ntgcgcatcaa tncagggtatc attaaatttn ttttaggagt ttaaaaaana aaangcncnn 780
 gnnnnngnnn nnnngntnnc ctgggggggg ggcccggncc caattncctt nagngggggg 840
 ggttaanann cnggccgggt tttnaacggg ggnngggnaa accnggnttc cccaattaan 900
 ngctgtggaa aaacccctt 919

<210> 1580
 <211> 935
 <212> DNA
 <213> Ctenocephalides felis

<400> 1580
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 caatatggtg cagctggatt tcggacaaa gctacagact tggactatgt catgtttcgt 180
 atgggggttc ttgcagctct tcgttcccgt gttaaaagca cagcagtaat tggattaatg 240
 ataactgcat cacataatcc tgaagaagat aatgggtataa aactcgtaga ccccatggt 300
 gagatgcttg aacaaagttg ggaagagtta gcaaccactt tagttaacgt tagtgattct 360
 gagtttagagg ctacagttga aaaaattgta aaagacttga atatcgatct taatttgaag 420
 gctaattgtg ttattggtat ggatacaang tatagtacgt nccagtcctt tgcaaagctg 480
 ctggtgatgg agtattatct atttcggggg atctcccaga gaattttggt attggtaccg 540
 actcccaatg cttcactatt ttgtttntn tgcaaacctg atcaagccta ttgggaaaac 600
 ctactggaag aangntttta taccgaattg gataacttgc ttcaanaacc ctttcgggcg 660
 angttncatt tcaatgggaa agnattnnc caaaattttt ntttgatngg ngcnatgga 720
 ntggggggca aaaaangntt caatttnaaa aagacngng gangtttgat ttgtttttta 780
 acaancggcn aaggaaaata aatnttaggn gnggggctnt ttttggaang acaccattn 840
 cncccaagg antncnntta aaaaantttt canngngntt tttgttgaaa cccaancgna 900
 tgnttccnnt tnngganaaa aaaaggtttt antgc 935

<210> 1581
<211> 920
<212> DNA
<213> Ctenocephalides felis

<400> 1581
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caagaatatt tattggttta atttcaaaaa cattttgatt ttcatatatt ttattttattt 120
cattttattgg aggaatatta attctatttta tttatataac aagaatttca aatactgaat 180
atTTTTcttt aaatatTTtat aaaactattt ttattatttt attattaaca ttaagaatta 240
ttattttatta taataaaaaat tttctatttaa tttttaacaa taattccata tttaatgatt 300
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atTTtattaac tattatatta attattttatt tattaatttc attaatttgt gtagttaaaa 420
ttacagatat tttttatggg cctttacgaa aaaattttta aaaaaaaaaa aaaaaaaaaac 480
tcgagggggg gccccggncc caatcgccct atagtgagtc gtattacaat ccctggccgn 540
cggtttacac ggccgngact gggaaaaccc tggcgttacc caacctaatc cgccttgnc 600
gcacatcccc tttcgagctt ggcgtaatat cgaanaaggc ccgcncctgc gnccttcena 660
caagttggcg ccaccggaan ggggaanggc aaatgnnagc gtttnatnttt tggtaaaatc 720
cggggtaaaa tttgntaaaa ncgnccattt ttaaccaatn ggccggaatn gggaaacctt 780
tnntaatnca aagnattgnc cgggntgggg tgggngtggt tcngttngga acaaagtccc 840
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ggnaccccc ctaanaggtt 920

<210> 1582
<211> 904
<212> DNA
<213> Ctenocephalides felis

<400> 1582
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gttctttaat ctattatgtg gcaacaaaaa tcaaaccaca gattatagat caattgcctg 360
tacttgtaaa atatatatca acatcaaaat tagacacaac agtttagagtt gatgcgccct 420
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gaattgggtg tggtgtacac ctgaacaaat tgaaaaagca gtaaattgagg ctatgttgga 540
acataaagag gcaattcttg agaaacgata cagatacaac actggtcctt tgatgcaaag 600
tgtaagagtt ctttaccctg ggcagatggt cggctataaa tgtgaagtgg acttacaggt 660
tttgacttat tggggnccaa aactggtgcc gattancacc ttggcaaaaag tggaaagaaa 720
gtnaagntca cnccagtgcg gataaaaaatc ngaccgaaaa gaagcccag gaagtggatc 780
aagcagcttg gggccatgtn tttntgaatg atgaaaaaaa agncctttta tgccctctggg 840
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aang 904

<210> 1583
 <211> 907
 <212> DNA
 <213> Ctenocephalides felis

<400> 1583
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 ataagggcgg tcaaactagt ctctcataat ttgattttatc tcagaagcca attatttcgt 180
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 tttgctgtgt cgtatttggt gtttacttgt gttgtgtccg gataaataaa gtgcttgtga 300
 ttttaagtaaa atggccttta atgatgataa tgaggaaaat atagaaaaaa gtcataaaga 360
 tttgtgttta gaattaaata tggacacgtc tgcagctact gcttcgtggg attcttacia 420
 ttctattaga gaaaattgtc attagagga aaccgaagc actggttatg ttgctcatta 480
 tatgtagcct gtcgacaaga tatgactccc acagtgggtc aagtgaggcc ttagtagaag 540
 gaaattgtgt cagtttaact agattattga gattgtgcaa tattagtctg gggtagattt 600
 ttaaaaaagt aagacatggg ctgaattgac aaatatgcct gaatcattat gagacgttta 660
 gatggattag aaaaagttn gctgggctng atttattcaa aagttcaagc ttattcgacc 720
 actggttng aaaccacaa gaagggtgag gatcaccagt ctcccaacna acaaaaattt 780
 aaatctntca caagatatcc cagtctgtgg gtcttttggg gcatnaaagg aaacnccctn 840
 ccaaagnan gattaattgc ctggccctct ttgntggg ccgcttgattg gtatatcnaa 900
 agccntg 907

<210> 1584
 <211> 898
 <212> DNA
 <213> Ctenocephalides felis

<400> 1584
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 gataagccaa tgttactaaa aaggcaattt ctttattttg aatattatct tatcgagtag 180
 gtaataacaa aataatcaac aaacgtgaat taatgaagtg ataaaaaata ctgacaataa 240
 tagtggctca aacggagatg cttagaagtt ctgtgaaaaa tatgtgatcg ttaattttgtg 300
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 gaaaaatgat aacatcaaga aacagcagga tgaaatcaat ttttcatttc gaagtattcg 420
 ttatacaaga tgcgacagaa aagaaaaaaa atcagtgtgc atactgaaag gagtctcggg 480
 atgctttaca tcaggaaaac tctggtgcat actaggtcca tcagggtgcag ggaaatcttc 540
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 atggagccaa tgtgacatta gataaacggg tttaggaaag cctgttggtg tataaccaag 660
 atcngcatgc tggccactac caccgagaga actntctgtt gcagcagact gaaatgaaac 720
 agaaatcggg taaaactgtg gagatgcatg caaaatgctt acttaccat gttanaccnc 780
 gattantgcn ttttgngngc aaaaaaanat ttcaatggng tcaatgggga aaatcccaa 840
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<210> 1585

<211> 912

<212> DNA

<213> Ctenocephalides felis

<400> 1585

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gatgngtga agctcatgac ctataaaatg gtaccttccg gatgggggaa aaactttact 840
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ttactaaaaa aa 912

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<210> 1586

<211> 941

<212> DNA

<213> Ctenocephalides felis

<400> 1586

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attagtcatt gacatgagcc ggtgtttttaa aaatgcttag tataatgggt aaattcttaa 540
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aattattgng ttancatttt tttttaactt ggaggcgtat nttggggntn gggntnaana 900
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<210> 1587
 <211> 925
 <212> DNA
 <213> Ctenocephalides felis

<400> 1587
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 tgagtgaaca ctttttcaca cttttggaag aaatgggtta tttgcatcta caagctacca 180
 aaccagatac agtgggctgt gctttaagag attcaccagc tggtttagca gcttatattt 240
 tggagaaatt ttcaacatgg actaacagat cttggagggtc agttaaatgat ggaaacttgc 300
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 ttcactgcgg tgaaaaagtt taaaagaatt ttattccaaa aaagctgaag aaagccaaaa 660
 gaaagctgat ttgggataat tttggtggtg gatataataat tatgctaata atatttggag 720
 ataaatttaa cccattcatg gtcacatatn ttttttcctt cctccctttt tttaaataaa 780
 aaaaaaaaaa actngngggg gggcccgnc caattcncct tntgngagtc gattacaatn 840
 actggccgng ttttanacgg tnggactggg aaaaccctgg ggtanccact taatggcttg 900
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<210> 1588
 <211> 892
 <212> DNA
 <213> Ctenocephalides felis

<400> 1588
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 ttgtaaataa ttagtcatta ataaaaaatg gctacatatg aagaatttat tcaacaaaat 120
 gaagatcgag acgggattag gcttacatgg aacgtttggc cttctagtag gatagaagcc 180
 actagattag tagtcccgct agcatgtctt taccagcctt tgaaagagag gcctgattta 240
 ccaccaattc aatatgatcc tgtacaatgt acgagaaata catgccgagc aattttaaat 300
 cttttatgcc aagttgacta tagagccaaa ttatgggttt gcaacttctg ctttcagagg 360
 aatccgtttc ctccacaata tgctgcaatt tctgagcagc atcaaccagc agagttgatt 420
 gcaagtttct ctacaataga gtacaccatc acaagggcac catgtatgcc tccaatattt 480
 tatatgtcat gggatacatg catggatgat gaagaactgg gtgctttaaa agctctttac 540
 aatgtcttta agttatggcc ccaaattctt tgggtgggcta gtacattngg aaaatgggtca 600
 ggtcacgagt aggactgang tgtcaaagac ttgttttagag gcctaagatt aacagctaan 660
 caatcaagaa agttaggcat tgtcggaagt gatncccaac acagaaaggc ccaatgccca 720
 caataagcgg gccagccaat anatcatcca cctttccata aangcaaag gntttaccgg 780
 ccttttggga naacggnacc agaaccctgg cctgtncctn aagggaaggg ggcttacgtt 840
 aactgggnct gatttttcga agcccnggg ccttttgngn gctttttgnc cn 892

<210> 1589
 <211> 928
 <212> DNA
 <213> Ctenocephalides felis

<400> 1589
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 aataatacat aatttaccga gcaacgtgca ctgtataacc tacaatcac gatttcgact 180
 gaatgaaatt atggacgctg aagatttgaa tcagttctac aacgggaggg agatgggtgc 240
 ttggcctccc aatgttggca tccttgccat cgaactgacg tttccgtcgc aatatgtcga 300
 ccaggccgaa ctcgaggcat tcgatggagt gtcagcagga aaatacacia ttggactcgg 360
 ccaagcaaga atgggcttct gtgggtgaccg agaagatatt aattcattgt gtttaacagt 420
 tgtaaaaaat ttgatggaaa gacatcaagt gccttatgat agaatagggt atttgggagt 480
 aggcacagaa acccttctcg acaaatacaa aagtgtaaaa tctgtcctta tgcaattatt 540
 cgaaccact gcaaangtgt actgatatcg aggggtgtaga tctacaaatg cttgttatgg 600
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 tggctttggg ttgttgctgg aaacattgca gtatacccaa ngngngctgct cgtccaacag 720
 gagngcaag tgcttgaacc atgctggtgg gtcccgact tcnnttgcga tgggacaaaag 780
 gcttanggct ttatgtntga nacatgctta ttgatttttc caacctggat tgggttcaaa 840
 gnttccccgg tggangnaa aataagtttt aatgntnttt ngggagcnct ggacccttgg 900
 tttgctntta ctgggaaaaa agggcaag 928

<210> 1590
 <211> 922
 <212> DNA
 <213> Ctenocephalides felis

<400> 1590
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 tccggacggt gcatatatcg cgatcggctg ctttgacgac tccaacgtcg acgaaatgat 180
 gtatttccgt tacggagagt ctggtactat tgaaagccaa tatccggaat tggtagatct 240
 gcgatatcca aagcccggta gagtaaattc gacagccaaa gtaaaagtgc tccgtctgaa 300
 cgaagctcgt ggtcgtaata tgccctggac ggaactgaca gctcccgaac aggatgttgg 360
 caaagatcat ctgctagccg ctgtcacctg ggccctctaat aacgaggtgg cagtacactg 420
 ctaaacagac gccaaaacta ttctgttatg caaatctgca atgcaggac cggagaatgt 480
 aaaacggaac tagaaaccag catgcctggt tggatcgacg tacgtaaatt ctggtttact 540
 cctgatggcg atcgttatat aactatcaga tctgtgcaac acacttgatg gattacatat 600
 cctcatatag taggagcccg aaagaaggac ggaaccgaaa ccaatcccca gtgggaaatc 660
 gtctggtacc aatattatag gttcgatgcc gaacgggat cttttntntt actcagcaac 720
 attggctgga aacngtcccc ccaagaaatt ttggtngncc gggtccaaag cttgtccttg 780
 nccgtcactt ntgacccaaa atgganataa tgengatttg gtaaaagngat ttaacnaana 840
 gttntttttg cttgcttgat tggcttggac caaccnccc tttgcgtntt ttttgaccgg 900
 ggaagatnaa ancttgcaac ng 922

<210> 1591
 <211> 926
 <212> DNA
 <213> Ctenocephalides felis

<400> 1591
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 ctattttactg ttgtctttat tttgcttcat attgtatttt tcggtatcca taaatatcgt 120
 tgtttgtgaa aatttgtgtg aaaaagtcta ttaagcatct tcaagtttgg tatggctaaa 180
 cctcacctga agaaagtagc gttcctgagg acccgctatg tcacagcact aaaattaaga 240
 tttttcttct ttgtgacaat accagtttgt tatttgggtat ttacagcggt aacaaaaaca 300
 tccgtttctt ctgaagatat tgaatattac ccgcagacac cagaaattac tggatcgcg 360
 aaattgcttg gcctatcttt caccgatgcc aagaattcga gcctggcaga tgatcatggt 420
 cataactgca cgcccgagc tatcttagat tttccctctg atggattcac caggagcaa 480
 agaagacagg gctgggcgct ggtccatgcc gcatcgcat ctactgcttc ttggctatta 540
 gcattagttt gcgatgacta ctctgttccg gcaattgaga tgctgtgcaa aaagctagat 600
 atgaaggaag atgtcgcccg actacatcat gggcgctgcc agttctagtc ctgaattatt 660
 attaattcng naggacttca tacagaagga gacctcgggg tcggcncggg cgnggggttca 720
 tctgnattta atatactggc cgccctgctg tgnngggctc tttgtgggaa ggtagtanaa 780
 tttaaagtgn ggccagaacc tcgggatntg gcttgnntgg atttgccgaa ttggccctnt 840
 tcctacnttt ntaanatggg aaaagtttgt ggggtgaanc cctaacccta aantggctt 900
 atatnttttt ttngcgcttt gtncn 926

<210> 1592
 <211> 943
 <212> DNA
 <213> Ctenocephalides felis

<400> 1592
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 gcatttcgag ccgtaattat tattcgtatg taaatgagcc tgccaacaa atcaaagaca 180
 aagaaccgaa atgggttact gccgaagaag ccgtaaaaat tattaaatca gatgactggg 240
 tgtacgtca ggggtcggtt gctaccccaa tcaacttatt aggtgcgatg actgcacatg 300
 ggaagaagca aggcctgaag aatgtgcgct tctgccacat gcacactgaa ggacctgcat 360
 tatacgctca gcctgattgc gaaggatat ttagatctgt atcattcttc atgggaggca 420
 acgtacgtgc agctgtgaat gaaggacgag gcgatgcaat tccaatcttc ctatcagaaa 480
 tacctcttct attccaaaag aaaattattc aacctgatgt agccatagtt catgtttctc 540
 ctccagacgc tcatggattc tgcagtttan gtaccagtgt tgactgtgcc agagcttgcg 600
 atgcaagcat caaaagtgat aattgcccaa gttaatccta aaatgcccgt catttggtga 660
 ctatttggtg cacaaaaagt cacatagata tgctgtanaa attggtgaaa ccgtggtacc 720
 catggnggna aaccaccta tangaaga aactgcaatt ggngcacata ttgnaataa 780
 cttggnggaa aaaggngccc actttaaatg ggtntnggaa ccattcctga tgcngtntnt 840
 tgccaacttc cttaatcnca aaaatnttgg aattcatttt tgaaagtttg gccaaangnt 900
 aatngcntta aaggaaagga ngngttgtt ccaaacccta aat 943

<210> 1593
 <211> 929
 <212> DNA
 <213> Ctenocephalides felis

<400> 1593
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 tcctcgagta tttgttaatt tgcgtgggct gaattttcgg ggcgaaactt gtgatatgaa 120
 caaaattgag atggctgaag ctgcatcacc tagtacagaa atgccacact caggtggaga 180
 accagggaca ccaatgggtt cagttgttgg tgcttcaggt gaacttgagg ggctgagccc 240
 agaagaagct gaattgaaaa gagctgagtg gagccaagag cttgcaagag tggaagaaga 300
 aattgggtact ctaagaactg ttttggcaag caaagttcga agaagtggag aactgaaagc 360
 taagttaggt atcactgttt ggaaagaact aactggggat gtcaatcaaa gtctacgtac 420
 tgttaaagag agtcaagtct atggtaatat tgaataattgt attggacaaa taagtaaagc 480
 ttgtgactag tgcacctatt taccagaaaa cagaattggg actgaaatct actgccgaaa 540
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 aatctgaatc tttcaaatca ctagaagaaa aaatgggttc agcctatgaa aacgttaaaa 660
 caaaagttca tcatctcgtt ctaattctat tcaaaaatttt gatgaagcat tgcgtgaagc 720
 ttaacaagat tctgttcaac ttctactntt cctgaaaant caatttcaac cagtaccntt 780
 tgnttcaaag ctctctctgg ttntttatna aatttttnaaa aattagtaac canggaaaag 840
 tccggnccac ccgaagatgt ttttctctac caaacttggg tcacatactt tnttggaat 900
 cttttccatc caattcatta tttttnaag 929

<210> 1594
 <211> 938
 <212> DNA
 <213> Ctenocephalides felis

<400> 1594
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 accttcatca tcttgtacaa caatctcatc cccatatctt tgcaagtgac tttagaagta 120
 gtcagattta tgcaggcgat ttttataaac atggacgtcc taatgtacca ttcagagtct 180
 gatacaccag ccatggccag gacttcaaat ctaaacgagg aattggggat ggttaaatac 240
 gttttcagtg ataaaacagg aacgttgacc aggaatgtta tgaagtgtgc taagtgttct 300
 attggtggaa ttattttatc ttgtcctgat tgcccggagg gcagctttag agatagtccg 360
 gttgatggac ttgatattga ggatgctcag aaaagcgatc tggttcagaa tttactcaac 420
 aatcatccaa cagtcgactt gcttaaagaa tttatgagtt tgctatcggg ttgccatact 480
 gtgataacctg aaaagagcga ggatggnaaa atcattatca tgcatcatca ccagatgaaa 540
 agactttagt nagtgggtgca aagaaatacc gnttcttcat ttgaaacccg gncaccacat 600
 caccgtaaaa antaaacgct tggggtgaaa ttttaaaaat tgagatattg gatggtctcg 660
 aatttacttc aacaggaaaa gaatgttnt tgnttggtag aacncccagg gccaatataa 720
 ntnttttggg aaaggaccag attcctggna tnttttgaaa ggttngccaa agaggacncc 780
 aatttcgnga ngtaacnttg gaaanctttn gnccaatttg ntnagggggg ggcccgggtc 840
 ccaattncn ttaaggngng nggattacaa ttnntggccg cggtttcnac cncgggactn 900
 ggaaaacctg gnntttccca cttantcctt ggangcct 938

<210> 1595
 <211> 929
 <212> DNA
 <213> Ctenocephalides felis

<400> 1595
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 gggagttatg gtggccaaga aggactacca tgcacccaaa caccagaaat tagagcaaat 120
 tccaaacttg caagttatta aggctttgca gtcgttgaaa tctagaggat atgttactga 180
 acaatttgca tggaggcatt tctactggta tctgacaaat gaaggatttg aatacttgag 240
 gacatacttg cacttgcccc cagagatcgt gccctccact ctcaaacgtc aaaccaggcc 300
 cgaattggca aggccaagac cagctgccgg cccaaggact gaaggatctc gtccagctga 360
 agacagatct gctaccgtag ggcacctggg gcacctggg gcgctgacaa gaaggctgat 420
 gtcgggtgctg gcaactggaga cttggaattc cgtgggtggat atggacgtgg cagacctgcc 480
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 accnnnnnnn nnannnnnnn nnnnnnnnnn nnaacttgng ggggggcccc ggncccaaa 600
 tccnccctta gggagtctan tanaattcnc tggccgngt tttanaacgt ngggatggga 660
 aaaacctggn gttncaaaat taattccctt ggaaaanac ccntttacca gttgggtnaa 720
 aacnaaaaag gccccaaccg atcccttttc caaaaatttg cccaccttaa tggnaaaagg 780
 gaaatttgaa ncttnatttt ttgtaaaaat ccggtnaaat tttggnaaaa aactnntttt 840
 taaccaanag gccnnaaatn nggaaaatcc nttttaanna aaaaaanaan cccgaaaagg 900
 ggtngggggt ttccaattgg naaaaaant 929

<210> 1596
 <211> 935
 <212> DNA
 <213> Ctenocephalides felis

<400> 1596
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 catgcaacac taagtccaac cattccgttg gtttgatgtg gtggctgttg tccagagaag 120
 tottgagact tctgggatca attccccgtg agaagacttg ggatgtcgta gttgatttgt 180
 tcttctaccg tgatccagag gaagtagaga aagaggatct tgttcacaag gaagttgtgg 240
 ccaaagttga gactgctgtt gctcatgata ctgctgaagt atgggcagga gatgagccag 300
 ccaactcaatt atggactgat gatgcacctg ttgctgcagt tccggctgtt taccctgctg 360
 ctgccagcca agattgggccc gagcaagtgc aagaagaatg ggctgccaac cctaccccag 420
 ctgctggtca aactacttg ggaagctcca cacaagaatg gtcataaatc aaatgatact 480
 ttttgtattg gataaatgaa ataaatgaaa attaaaatta aaaaaaaaaa aaaaaaaaaa 540
 aaactcgagg gggggncggg tccaattcg ccttatagga gtcgtattac aattcctggc 600
 cgncgtttta caaccgtcgn gactgggaaa accctggcgg tanccaactt aaatcgctt 660
 gnagaanaat cccctttcgc aactgngta aaaaacnaaa agggccacc cgatcgctt 720
 tccaanaatt ggncaancct gantngngaa tngnnaaatt tgaagngtta ttttttggtn 780
 aaaatcccg ttaaattttt gtnaaaaang ntnntttttt aaccaaaang ccgnantng 840
 naaatncntt ttaatnaaaa aaatancccg gaatggggtt gggttttttt cnatttgga 900
 caaaaatccc tttttaaaaa acnnggcnc canct 935

<210> 1597
 <211> 941
 <212> DNA
 <213> Ctenocephalides felis

<400> 1597
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 gagaaatacg ggacggtcgt cgaatgcgat gttgtcaaga actttggttt tgttcatatg 180
 gagaccgaac agcaaggtcg ggatgcaatt cagaacctaa acggctacgt aataaacggc 240
 gagggccataa aatgcgaagc cgccaagagc cggagggcgc cgtcaacccc gacgacaaaag 300
 atattcgtcg gaaatttgac agataaaact cgcgcgccgg aggttcgcga actgtttcaa 360
 aaattcggta cagtcgtcga atgcgatata gttcgttaact acggtttcgt gcacttggac 420
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 cccatgaaaag tgcaagtgtc cacgagtcgc gtgcgccaga agccggggcat tgggtgatcc 540
 cgacaatgct accgctgcgg gcgtggggga cactggtcca aggagtgtcc ccgtgccatg 600
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 gcggcaccgg cnttctgnnc caaccggatg atgggccgga ttcccgggat tctattgacc 720
 nttcttcgat agangttttg atggttcaag ggattttattt gganaggcgt tnttctggng 780
 ggaatgcccg gtntgcgtgg gggggccaaa atttattgcc gcccaaggaa aaaanccttt 840
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 tattccattt ttaccggng tttccccaag gnggggtgcn g 941

<210> 1598
 <211> 937
 <212> DNA
 <213> Ctenocephalides felis

<400> 1598
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 gagattagga gccacagtac ccaatttcaa ggctgacacc acagaaggac ccatccagtt 120
 ttacgactgg tctggcgata gttgggttgt gattttctcc catccagctg acttcacacc 180
 cgtctgcacc acggagttgg gtcgcatggc cgtccaccag ccgcacttcg tcaagcgcaa 240
 caccaaattg ctgcacctga gcgtcgacga cttgcagagc cacaaggact gggatcaatga 300
 catcaagtct tactgccagg acattcccgg aaaattcccg taccaatca tttccgatcc 360
 gaaacgcgag ttggctgttg ccttggtgat gatcgacgaa gagcacaagg acgacctgc 420
 tcacgccatg accgtcagat ctttgtcgtg atcgatccga accacaaatt gagattggcc 480
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 aaaaaagtaa tgatcctgcc ttccgttcag aatgaaggaa gcagccaact gtttccaaaa 660
 ggtggtgaca cttgtttctat gccttcaggt aaagggtttt gtgcccncac cgactggttt 720
 ttnaaaaaaa acaagaactt tttttgnttc cttaaaaatt tttaatcctt ttccaaatnt 780
 ttgcnaaaan ttttaatttt ttttttatga acaanttttt gaaccctaag cnttttaaan 840
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 ggttttntaa atntgggaaa cctttttttg naatntt 937

<210> 1599
 <211> 648
 <212> DNA
 <213> Ctenocephalides felis

<400> 1599
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 ctccggagcc gttttgcccg gagcaccagg acgagaggct aggattttac tgtttggcgt 120
 gcaaggaacc tgctgtgcg agctgcctgc agacggagcg acacgccagt catgacgtgc 180
 aggcgatcac tgcaatgtgc aaggcgcaaa agactgaatt atcccaaaat ctgcaacagc 240
 tttctgaaaa agcgaggctc acgacagaat tcatacaacg gctaaaaggg atgagtgaca 300
 aggttatgga atcatgtaca gaatttgaac acttagtaac agcacaatgt gatgcattga 360
 tcacagctat tttaaatagg cgagattatc tcctagaggc aatacgatgt gatagagaag 420
 ctaaaactcag agcactcaag gaccagcatc aactgctaca ggaaaattac aacacacgac 480
 aggttaatac aatttgatag aggcttcaaa gaaacgatag tgtgatttta caggtgggtc 540
 atgtatagcc ganggccaac gacatcgctg catcggaggc agagcncgcg gtgttttnaca 600
 gtcacttacc tgacgacagg cgtctaggca tgnctactact tntcaang 648

<210> 1600
 <211> 650
 <212> DNA
 <213> Ctenocephalides felis

<400> 1600
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 aagacaccac aattcaagaa catccttacc aagtatcaat tttgtacaat gatgaatc 120
 acagctgtgg aggttctttg atttctgaaa aatgggtttt gacagccggg cattgcatcg 180
 attctttcaa attctacatc cgtgtgggaa gttctcttga aggcgaaggc ggagctgtgc 240
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 atggattaat tgagtttagc acaccggtag aacttagtga aaatgtaaaa ttagtcaaat 360
 tggctgaacc tgggtgtgaa cttgaagaag gaactctact aaatgtcacg ggatggggta 420
 gccgtcgatc cagcgcagct ctacaaatag taactgtcca tatgtatccg aagaagtctg 480
 caaaaaatca cattcagaca ggtgatctcc catatatgtc tgtgtggtaa aatgcaggag 540
 gagaagncct tgcatggtga cttgnggccca gtgatcaatg gntcaattgg attgttctg 600
 acttgatggn ctccactttc tcgttttgta atncgntntc agatggtaag 650

<210> 1601
 <211> 649
 <212> DNA
 <213> Ctenocephalides felis

<400> 1601
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 cgagatgaac ttttggccaa gatgagtgac actgaagaca aatataatag acaagttgct 120
 gctctaacca atttgcaatg tgcttagaaa caattccaaa gagataaaga tcangaaatc 180
 caccaatgca cagaaaggat aagaaaccaa ttggaattgg aacgacagga acaaactgct 240

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ttaaggaacg aaatccaatc cctaaaaacg caacttagtg aacaacaaca aggcctgatg 300
gctgcaggaa gacttgccag tcaacttgaa tcttcacaaa caactgtaca aaatctcaga 360
caagaattga aagagagcca agacaaatac gctgctctga ccgccaaagt ggagtccttca 420
aaaaacaacc aagccgacaa aatcgagaag agcttgtaaa aacctaatac tcggtacatc 480
cagctgggtca acaaaacgac angcacaat ctaaaatata tagcagtcct gacttcacca 540
gtcggatgag accgatagct ttgagcacca aaatatntgg ttgagatctg tctggatgga 600
gagaggctgt aanccttgca ttttggaag atttaccaac gntnggagg 649
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<210> 1602

<211> 646

<212> DNA

<213> Ctenocephalides felis

<400> 1602

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accgtcacca atatTTTTTg gagcaattct agatcaaaca tgcatagttt ggggaaaaac 180
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tttaacggca gcttcttttg tcacaattgg agtattatct gatgtcggag tttggtatct 300
cgtcaaaaat ttaaaaattt acgatgaacc tgatgatgac gaccaagaaa tgaattcttt 360
gaaggcgcaa aaggcggatg gagctgctgc aacttattcc aatcgaatct ctctatacaa 420
agtcataata agaatagtac ttgaggaatt taaaattaat ttaagttgta atgcaaaaaa 480
tgtaactgat taaaatatat aaataaataa gtngaactat aaaaaaaaaa aaaaaaaact 540
cgngggggcc cgggtcccaat cgcctatagg agtcgataca tcnctggcgc gttacacgcg 600
gctggaaaacc ctgcgtncac taatccttga gacatccctt cgcagt 646
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<210> 1603

<211> 643

<212> DNA

<213> Ctenocephalides felis

<400> 1603

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attaaattaa tatttcgata aaacattcgt tattattaga atatttggtc tagataagtt 120
aaattatttt aaggggtctt aagtatttgt tttatttggt cgtttaattg tgatgtagaa 180
ttgtgagaat tcaatataat atattaaaaa tgtttcggca agacaattca aaagctttta 240
tgaaagaccc tcatactgag aattgtagga tttatatagg aatatataaac gagcatgtga 300
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acaagggatt tggctttatc caattcgaaa aggaacaatc tgtcaatgaa gccatcaaaa 420
tggaacatca aaatatgttt catggcgaaa catgattgtg agacgagcca aagcaatgta 480
ggaggagcag gtggtactct gcaggcctgt acgcaggtct ctccgaatcg tgatcggggc 540
gttccagnac tcacacatga gggcagacag gtctggtccg gcctgtcnct tgtgcctcgc 600
attgcagcgg agtggttggg gctcaaagcn ggcgtgtgtg aan 643
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<210> 1604

<211> 651
 <212> DNA
 <213> Ctenocephalides felis

<400> 1604
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 tatagtgtct tcgaggctga attggcagag actattccgg ttgtccatgc tagcattgca 180
 ggggtgtagga tcattggcag gttgactgtg gggaataaaa atgggtttatt ggtgccagct 240
 tcgacaactg acacagagtt gcaacatata aggaattctt taccagaaag tgtaaaaata 300
 caaagggttg aagaaagatt atcagctttg ggtaatgtga tagcttgtaa tgattatgta 360
 gccctagtag atccagatct tgataaggaa actgaagaaa tcctaacaga tgtctaaatg 420
 ttgaagtatt ccgcaaacag ttgcagtaat gtcctagtag gtcatacac agttttaagt 480
 aaccaagggg gcttagtgcc cccaaaacat ncatacaaga caagacgagc ttcgtcatag 540
 tcaagtccgt agtggccgga cagtnccgag caggagnttt agcagagggt gnagcaacat 600
 tgngctctct ggggatggcc nacncaactga ctagtggatg aagcgggtcac n 651

<210> 1605
 <211> 637
 <212> DNA
 <213> Ctenocephalides felis

<400> 1605
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 gtgactttga catcttttat aaatacattc aacaataaac tggaagcgcc agtccagcaa 120
 catctcaaag gcgtctacgg gtgtctggca gctacaacat cattagctag tataggggct 180
 tacagtttcc ttgcaggatg gctctcagca ggattgttgc cggcttttagg agccctagga 240
 ttaggccttg gcttgatgat gacctctcca gatgccaaaa attttaatat gagactagga 300
 atgctgttag gattaggatt cttgtcagggt ttaggattag gaccottact agctcatgtg 360
 gcccaaatca atccaagtat aataacaact gcattatttg gcaactacttt agtattcgtg 420
 gcattcaact tatcagcaat atttgctgaa cgtggaaaat ggtattcctg ggtggaatta 480
 ttgcagcggt tgaatatgat gtcttctcct cttggcaatt ttctgcaaag actttgnttc 540
 nagctccctt ntgagatatt gtntggggct tggccttatg atccagcttt nttgaaaatc 600
 anactggacc caccagtggc tctttgctgt cttgatt 637

<210> 1606
 <211> 644
 <212> DNA
 <213> Ctenocephalides felis

<400> 1606
 gtttttcagc ctatgcatat ttaggagaat ttnntggaga taaaacaaga gccagggcaa 60
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 gaataattcc cctcaacttc agatatccca taccagggtt gggcatagac tggacggcct 180
 ggaggttgta cgtcctgata tgctcgcttc taatcttttg ggcttgatta tgattataac 240
 atttccagaa acaccaaact ttttggtggc cactggaaaa actgaagaag cactcgatgt 300

tcttgctagg atgtacgcca gcaataaagg ccgtaagcct tctgactttc caataaaaatc 360
 cctggacatt tctggtgttt ctggtaacct ggcaaaagct ggaaatgctc gtgaaattgc 420
 ttctctcatg atacancaa cagttccatt attcaagaaa ccacttgtaa atcacacttt 480
 tgattgtatt gtgcagttgg aatgttgcatt cttcagtggtc atgtcatgtg gtccagtgat 540
 agctacgatt tgatgcatat atgacaattn gcactatatg atgctgtcag ttttgataag 600
 gccaatcctc catccttnga caatntgctc aangatccgg gttc 644

<210> 1607

<211> 650

<212> DNA

<213> Ctenocephalides felis

<400> 1607

gttgggcccc atggtgtagg caaatccaca ttcttgaagt tattgactgg tgacatcaca 60
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 tctggtgagc acctgactgc ggatgaaacg ccggccgagt acctgcaacg gctgtttgat 180
 ttgcaacatg aacgtgcaag gcgagccctc ggatctttcg gtttgatttc tcgtgctcat 240
 actgtatgca tgaaggatct ctcaggagga cagaaggcta gagttgcatt agctgaatta 300
 tgtcttaatg cgcccgatgt tctcattttg gatgaacctc cgaataacct tgatattgaa 360
 tcaattgatg cattggcaga agccataaat ggatataaag gcggagtatt tgtagttaacg 420
 cacgacgaaa gacttattag agaaaccgat tggccttata tgtgatagaa gatagaacga 480
 taaatgaggt ggatggagat tcgatgacta tagaaaggat tattagaaag ctgggtgaag 540
 tagtgaataa tcaagtattg ccgtaatgca nagtatcata aaagatatac atatacataa 600
 tgctgattta ctccaatcta tatgatatgc nttgnaataa angataagaa 650

<210> 1608

<211> 637

<212> DNA

<213> Ctenocephalides felis

<400> 1608

ttgntcgtcg ttttggccac tttggccaca ttagtggcag ctgatggagg atacaaaggt 60
 tacaaaaatct acgacgtgac tgtaacaaat tcaatccaag aagcagccct tagatcaata 120
 ggtaacagtg gcgaattcga tttctggagt ccctcaaggg tccttgtaaa acctgaacaa 180
 atcgcaaaat tcgaaggact tttgaaaact ggaggaatcg acttccaagt ttttgttgac 240
 gacgttgacg aatttgcacg taaggaaaaa gccgaaaatg aagtcgcca atctagggcc 300
 gaagggcgct tgtccttcac tgcttatcat cgttacgatg tgatccaaca atacttgagc 360
 gaaatggcat ccaaacaccc agatttagcc aaggtcgaaa ccacgcgcac ttccagcgaa 420
 ggaagaccga tcaaagcgct gcgcttatcc agcggaggaa acggtacaaa ccggttggtg 480
 tatggcctgc atccacgccc gagaatggtg gcaccaacca ccgcttgact tgtagacca 540
 atctggaacg gccgacatat tattgcgaat ggatgggtca tcattctgtt taatctnngg 600
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<210> 1609

<211> 642

<212> DNA

<213> Ctenocephalides felis

<400> 1609

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aacttttgctt ggagaaatgc ctgcaacagg ttagtggaag aaagacctga tgggtgcaggc 120
ggcgggtgact ccggccgagg tgggtggccgt ggaggcggcc gcggcggtgg tgggtggaggt 180
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tttcgcggag gtgggtggccg cgggtggcggg ggcggttatg gaggtggccg cggaggcgggt 300
ggtgatcgta attctggagg aggtggctca atgcgtggag gagatagagg acgagatagg 360
caacgacctt attaaataat tagcttgtaa ttttattcac cctcattttc acatcattcg 420
tactcatatt agattttattg attttttagaa ttatttatat gatttgtatg attcaatgta 480
acacaatatt gtaaacttta tattaagatt taataatata aaataataga aaaaaaaaaa 540
aaaaactcgn gggggcccgg acccattcgc ctatagtngc tatacaatta ctgccgcctt 600
tacacgtcng actggaaaac ctgcttncca cttatcgctt na 642
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<210> 1610

<211> 634

<212> DNA

<213> Ctenocephalides felis

<400> 1610

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tggccaaggt atcccggcca ctgactgtgg cagtgcgaac aacatcccag gctgcaacat 120
gccctgctcc taaaaggta gaagaagccg atagtgtga aagagatttg gtcaacttcc 180
caaggccaac acgtttggaa cattcaccta aagttcgctt tggattcatt ccagactcat 240
ggtttgaatt tttctatgag aagaccggtg ttactggacc ttacatgttt ggaactggtt 300
taattactta cttatgttca aaggaaatth acgttatgga gcatgaattc tatactggta 360
tttcattggg tattatctgt ctctatgcc aaaaaagtt gggtcacat attgcaaaat 420
acttgacaa agaagtgat cctatgccg tgaatggaat tcagtcgtgt agaagaagta 480
aaagtaccaa gatgccattg aaggagaaag tggacaatgg agactgaagn cacttatgtg 540
tggtgccaac gtgaaatgtg cctgcacttg aactanagg accnctgaa gtnntagagg 600
tagaaacata ttccagttgg aaangaantt gacn 634
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<210> 1611

<211> 639

<212> DNA

<213> Ctenocephalides felis

<400> 1611

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cannatgcca cgaggaaaat ataccaatca caaaggcggt aacaggcatt tcacaaatcc 60
agaagagtta gaggaacaga gaaagcaaga agaacaaaaa aggcaatggc gtagggatca 120
tggaaacgaa tcaagttctg aggaagagga agtagccaaa aaagctgcag gtgataagaa 180
gaaagcccaa gggctggaag gctctgattc agagagtga tccggagactg aatcttcaga 240
agatgagaag gataagaaga aaggtgtatc tggattgata gaagtggaaa atcctaactg 300
tgttcaaaaa aaaaccaaga aactttctac tttaaatgaa acattaactg atagcaaacc 360
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aaagcttcat gcagaagcaa aactgtcaag caagatctgt ttagcaagac ttgcatcatt 480
aaacacagcg tgaagaacag cttaaagacc gagttggaaa aaaaaaaaaa aactcgnnggg 540
gggccggacc cattcncntnt gnngtcgtnt acatcatgcc gcgttttacac gtcgngntgga 600
aacctgcgta cccacttata cttgagactc ccttgccgt 639
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<210> 1612

<211> 640

<212> DNA

<213> Ctenocephalides felis

<400> 1612

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atttntgttg gtttaactcga gcagtaagaa tatataaaaa tggctgcagt tggcaaagat 60
ttagaaaaac caacagctga ggtgcctcag gtccatcgca tccgtataac tttaacttca 120
agaaatgtac gttcattgga gaaagtatgt accgatttaa taaatggagc caagaaacaa 180
aagctccgtg tgaagggacc agttcgcagt ccaacccaaa tcttgcgtat taccacacgt 240
aaaacacctt gtggtgaagg ttcaaaaact tgggatcgct tccaaatgag aatccacaaa 300
agagtcacgc atctgcactc tccatctgaa attgtgaagc aaatcacttc catcagtatt 360
gagccaggtg tagaggttga agtaacaatc gctgatgctt aaattttgta aattgatgga 420
aataaatgac aaaacctaaa aaaaaaaaaa aaaactcgag gggggggccg tcccaattcg 480
cctatagtga gtcgtataca attcactggc gcgttttacac gtcgtgctgg gaaaccctgc 540
gtaccacatt atcgcttgna cacatccctc tcncantgag tatangaaag cccncgcatc 600
gncttncaca gtgccanctg atgggaangc aattgnagct 640
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<210> 1613

<211> 644

<212> DNA

<213> Ctenocephalides felis

<400> 1613

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gacatatgta acccctcgtc gtccttatga aaaggctcgt ttggaccaag aattgaaaat 120
cattggagaa tatggtctcc gtaacaagag ggaagtatgg cgtgtcaaata acactttggc 180
taaaatccgt aaagctgccc gtgagttgct cacattggac gaaaaggatg gcaaacgtct 240
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aatgaagctc gattacgtgt tgggtttgaa aatagaagat ttcttggaac gtcgtctgca 360
aaccacaggt ttcaaaactgg gattagccaa atcattcacc acgctcgtgt tttgatccgc 420
agagacacat tcgtgttcgc aagcaagttg taatattccc tcttcattgn gcgttggatt 480
acaaaaacac attgacttct cctcaaate gccttcggtg gtggtcgtca ggacgttaaa 540
gaggaagact tgagaaagga tcagcgtgnt cactgccgag gaaaagagat aactttcaca 600
tttaatgtta tttttcataa taaacaaatc gcaaaaaaaaa aaaa 644
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<210> 1614

<211> 635

<212> DNA

<213> Ctenocephalides felis

<400> 1614

gttttgacaa gatgcgaaag caggctttct catctgtatg tctgttcggt gaagacaata 60
acagcagcat ttctgggtgt tgggtatgga ggggtcagga attagcattc aatctttccc 120
ctgactggca aattgactac gaaacctaca actgggtcaa attggacccc aaatcagaag 180
agaccaagaa attagtcaag caatacttct cctgggaagg tgccgataag aacggacgca 240
agttcaacca aggaaagggtc ttcaaataaa attcaactaa agaattgcca cttttgttaa 300
tatttcaagt tattgtaatc ttatcctgcc acaatattgt tatttttata gcaaaatgtt 360
tgctgatgat ggcattgttat attaaaattt cttgaaataa attattttaa atctaanaaa 420
aaaaaaaaa anaaaaaaaaa aaaaaaaaaa ntgggggggg gccgggcccc aatcccccta 480
tagggagtgg ntaacattcn ctgccgcgtt tanaacngng gatgggaaac cctgngttcc 540
caattatgcc ttgaacnadc cctttccnan tggnnnanag aaaaggcccn cctncttcc 600
aaattgccac ntnatgggaa ngaantttag cttat 635

<210> 1615

<211> 641

<212> DNA

<213> Ctenocephalides felis

<400> 1615

gttttnagtat tttttgttat ttcttgactt gatcatctgt tcgataagtt aattctgtaa 60
taatgaaaat tactagatat aagaaagtac atcgaaattt gaacttttat attaacaatt 120
ttggttttca tcagccattt caaatactta ttgacggaac tttctgttct gatgcgttaa 180
agaatcaatt caatattcaa gatcagttaa agaaatattt tcaagctgag cttaaacttt 240
taactacgca atgtgtaatt gtggagacag aaaatttagg acccaaattg gttgggtgcca 300
tgaaaattgt aaagcaattt ggtattcaca aatgcggaca tgaaaaggct ccaattggtg 360
ctagtgattg cttactatcg atggtaggca aaagtaatag agacagatat gtcatagcta 420
cccaagatcg tgatctacaa gaaaaaattc gggaaaaacc tgggtgtgct ctattgtatc 480
tgcacgttaa agcaccatgt tagagcgctt cacaactagc cgtgataagc tctggaatgc 540
tctggagctc aagtccaaca agggagactt gnataanaat aaagagagtg gttatcagaa 600
acacatgaca gaaaggagag aagaaaagaa ggnctatctt t 641

<210> 1616

<211> 636

<212> DNA

<213> Ctenocephalides felis

<400> 1616

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cttttgaaac gcaaaaacat catcccagga atcaaagtcg acaaagggtg agttgacttg 180
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caatacaaaa aggatggatg ccactttgcc aaatggcgtt gtgtattgaa aattggcaag 300
aatacaccaa gctaccaagc tatttttagaa aatgctaagc tcttggccag atatgcctca 360
atctgccaat ctcaacgttt ggttcctatt gttgaaccag aggttcttct gatggagatc 420

atgacttggg acgccacaaa aagttactga aaccgtttgg ctgtgctaca aagcttgaat 480
gaccaccacg ttatttggaa ggacttattg aaccaatat ggtactgtgg caaagtgcc 540
acaaaaccac ccagcagtggt aggagttgcc tgggctgntt gagganactg tccactcagt 600
ccggattcct ctnntgagac attgaaaaaa gctatc 636

<210> 1617

<211> 650

<212> DNA

<213> Ctenocephalides felis

<400> 1617

aacnnccttaa ggaaaagcaa gctaagcgca aggtatcccg cgctgaagaa gaaaagcgta 60
tggcccaag gaaaaaggaa gaagaagaac gcagaataag agaaattgaa gaaaagaaac 120
aaagagacat tgaagaaaag cgtcaacgct tcgaagaagc cgaaaagaaa cgccaggcta 180
tgcttcaagc caccaaggat gccacaaga agggcccaa cttcaccatc accaaaaagg 240
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aagaggaaaa gaaaatttct ctgtccttcc gtatcaagcc tctggatata gaattcttta 360
gcgttgaaaa actcagacaa aaggccaatg aactttggga atgcacgctc aagttggaaa 420
ctgagaaata cgatctggag gaacgccaaa aacgccagga ctacgatctt aaagaattga 480
aagaaaggca gaaacacaaac tcagacacaa agcattgaga aaggattgat cagagcccta 540
caggaaaatc ccccaaatc aagtcgctca atatgagagc ngtcgcacag acattgagat 600
agaaaaattn ttgaggggct aaactaaaca agagncttga cgttttgccn 650

<210> 1618

<211> 642

<212> DNA

<213> Ctenocephalides felis

<400> 1618

gccntgtagc accaacaac ttttcaaaat ctacacgtca ttatgaaatt ttcaaattaa 60
aaagtgttca ttaataatta tagtgtatta tataaatatt agttctaatac tattgttatt 120
aaaatggttc tcttaggcaa tgatgaattt ttatcaaaac ttacaaaaat gtttcaaaat 180
gccagaagtt cttcatcggt taccttaact atgaaacgat atgatggaag aactacacct 240
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gccgtacaca aatcaaaaag atttcgactg taattaaatc gaaagacgca gtgagggttc 360
acatagcata ttgcagttta ttaaaaggta atatggatgg tttgaaaaag atgaaaaaag 420
tcaaaccaaa agtgaaagcg catagaccta tttatttaat ggtgggtttg taagtgaagca 480
agaagatttc tttcttaaat ttatatgtga tgcgagatga atgctggtca gaaccttatc 540
attttcgatc tgtcacttaa tcgctaagta ttaaccctta ttaattcntt gatattggat 600
ggatattttg aaatagatnt gtttatttaa aaaaaaaaaa cc 642

<210> 1619

<211> 646

<212> DNA

<213> Ctenocephalides felis

<400> 1619

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tattttcaaa acccgttaat ggtcttgcaa gatttagtag ttcctataac gctacaagac 120
caaatctaaa attaaatgag aatactaaag taatttgtca aggatttact ggtaaacaaag 180
gaacttttca ttgtaaaca gctatagaat atggcactaa aattggttgg ggagtatcac 240
caaaaaaaaaag ctggaacaat tcatctcgat ttaccagtat tcaaaacagt aaaagaagcc 300
aaagatgcaa ctgaggctac tgcttctgtt atttatgtac cacctccagg agccgctgat 360
gcaattctgg aagcaattga agctgaaatg cctctaattg ttgcataac agaagggtgtt 420
ccacaacatg acatggttaa agtaaagcat agactattaa ggcaaaacaa aagccgattg 480
attggcctaa ttncctggaa tattgacctg actttgcaaa ttggattatg cctggcatgt 540
cacaacgagg aaaatggaat gttctcggct ggactttgca tatgagnagt aataacacct 600
agtgggctcg ccaaccttgg tggaataggg agacatttat gnctgt 646
```

<210> 1620

<211> 643

<212> DNA

<213> Ctenocephalides felis

<400> 1620

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acgtcgaagg tttcccgta cactctatac gagtgtgtca atgctgtatt ggattattca 120
aaggaaaaaga aaaagaagt cttggaaaact gttgaaatcc aaatcggttt gaaaaactac 180
gatccccaga aggacaagcg tttcagcggc accgtaaagt atgtttacct gacatgaatt 240
taatttgagg tttttaaaagt caagtatac tggtaacctc aagttttatt ctgataaatc 300
aggaagccaa agttatcttt ggcgacctg caccagggt cttaaataaa ttggggaggc 360
atttgccgaa ccttttagct ttctattcaa agtcgactac ttgctgcatg aactacttag 420
tagtaggtaa gccaagtaac agtcataatt tagaaagtaa agcaatgagg caaatgcctt 480
ttgatcctgc gggataaagt ttcaccgatt aaattgaact atcaattaac tttctttgtt 540
gtagatgagc acattcncga caaatgcag ttgtnnttgg gagatcacag catgngatga 600
ctaggcacat gtcatgntga tgcgacttga aactaacaga caa 643
```

<210> 1621

<211> 639

<212> DNA

<213> Ctenocephalides felis

<400> 1621

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tttaacagtt tatacgtttt ataatcagc ttctgaaact ttaatttcat aatgatttct 120
ggcgattttc ctgaggacce agaaaaggag ctgcagagtt tagaagatga tgttgttcaa 180
gaaattctca aaactggcac tgatctgaga caatactcga aacaaataga aaaagaactg 240
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ttgcacaatc aaattggggc ttgcgatgac atccttgaaa gaatggaaga tatgttaatg 360
agttttcaga gtgttttagg taatatcagt tctgaaataa cgtctctaca aaaaaaatct 420
gttcaatgtc attcaattat caaataggca ggctgtccga ggagatctct cacagttatc 480
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gaagatattt ctgtactcaa agctgtaccg gatttggatc ccagtactga gaaagaatta 540
tactcagtac aatctcatcc caganagttg taaagaccac attcaagagc caacttgcac 600
gtgtaggtgt cngagaactg aaataagcat gcaaaaataa 639

<210> 1622

<211> 635

<212> DNA

<213> Ctenocephalides felis

<400> 1622

aacnatacaa caatcgatac gagacccgaa gtatacgata taatcaatct aaagtctgaa 60
acagttacaa aaacgggcga tgaaacagga cagtccgcgg acattgatgt gcccgacaat 120
ggcgacgatg aaaatcttga catgaaaatc gaagcggacc gactgaaaac attcgaaaaga 180
tggccagtga gcttcataag cccctcggta ctagccaaat cgggattcta ttatatgaaa 240
gtcgacgaca gagtcagatg cgagttctgc aaagttgaaa ttggcagatg ggaacaagggt 300
gacgacccct ccgtcgacca ccaacgttgg gctcctaatt gtccattcct acgcaacagg 360
cctgtaggaa acgtgccaat agaccctccg agcacgtccc gagacccgga ccgagctacg 420
acgtatgcgg cctttgacca tacgtccaac gcgtccagaa aacaaaaacc tagcctacct 480
gtcaccaagg gcctgaatcc cccagtacgc atgagcagca cgcttagatc tactccatgg 540
ccggcagtta aagacgtcag gagaactagt gaagagcttt ttaccaggca cgaacgacct 600
tgttcntggg ngnggtaaag atggaccgga tntct 635

<210> 1623

<211> 641

<212> DNA

<213> Ctenocephalides felis

<400> 1623

gaattatttc tttgtggctg taaaagactg cacagctgct ctacttcaat caccgggtga 60
ttaaaaaaaaa cacgtgctga aaatggcttc gaaagtagca gcaaagaaag gccaggtcca 120
aactggcaaa aaacaacaac ttgcgcgaaa gggattgaag aaaaagaagg tatctcttaa 180
atttacgctc gactgcacca ccccgctcga agacaacatt atggatgtac agaacttcaa 240
aaaatacttg caagagagga taaaggtcaa cggaaagacc aacaactttg gtaacaacgt 300
ctcgtttggag tgccaaaaaa tgaaagtgtc tgtcatctct gatatcccct tctcgaaaag 360
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tgttgtcgat ggtggcaagg actcctatga attgaggtct tncagatctc atccaagacg 480
atgatgatga tgaagatgtt gnataatgta aatatcttnt gatataaatn taatattaaa 540
aaaaaaaaaa aaaaactcag ggggcccgcnc ccattcgcct ttaggagcga tcaatactgg 600
ccgcgtttac acgcggntgg aaacctgcta ccacttatcn n 641

<210> 1624

<211> 407

<212> DNA

<213> Ctenocephalides felis

<400> 1624

tctccatata aaaccttaaa tctttcaaca aaatgatgaa gtagctgctg agcataatct 60
 aaaagatcat ttaataacgt gttgctacat aaaattttta tagcaatatg taaagtaaga 120
 aaatttttat agaaagtcac ttgaaatatg acatgagatt tcaaaactac tggaccacta 180
 tacaataata attgtctaaa ttctgtagct ttccatggtc tcacatatct caatgatcga 240
 ggattcctag caaagtcctt ggatatataa atctttaagc tgcataaaaa attggaaaaag 300
 tcattagttt tagcacatgg caaacgaatt ggaagctcac cttcagtcca caaaagcatc 360
 aatctcttaa ctgctcctaa acaaatcaaa ttcatatagt caagtgg 407

<210> 1625

<211> 345

<212> DNA

<213> Ctenocephalides felis

<400> 1625

tcatngngca tgannttatgt gctttcagcg tgaatttatt cagtgccaat tatnttcact 60
 tacagaaaag attctcaatc ttgattattc taaatttccg attangaaaa ttactcangt 120
 agaacttatt acgggngcca caaaatnttc cggttattta agggatgatt gtatattaat 180
 aaacgcattn gtcaaagcag agctctcatt catgataagt cgataaaaaca taaaaaatg 240
 tgagtcgatn tcaaccctca aacttacatc ttttagtgng ggtatggagc tatgcaaagg 300
 aaaatctttg caattagatg ttcaaataaa tctcgtttac tgggtg 345

<210> 1626

<211> 77

<212> DNA

<213> Ctenocephalides felis

<400> 1626

cgaacaactt tcgacaatct tattgctccg cttcgcaaca tgattaatgg cagttttttac 60
 tttacggtaa gtgtgac 77

<210> 1627

<211> 285

<212> DNA

<213> Ctenocephalides felis

<400> 1627

gtattgaatt tttctttctc attctgaaag tattctatct cggatggaga acgaatgctg 60
 cttggcaaaa tcattgatta tattataaat catacgaaca aatttatctc gaatatttat 120
 tatagcgtca tattgatcta ataaaagaaa aaaagcagtt caacataaaa atattggaaa 180
 aagtgcatac attgcaaaat atccaagat tgcttataat atcgcaatta tatgtataaa 240
 cttcgcaagt cgagtgcac gtttaacgta agcgcgggtt gtggt 285

<210> 1628

<211> 436
 <212> DNA
 <213> Ctenocephalides felis

<400> 1628
 tcgtaattaa taaaattaaa cttaaaaacg ttcaaacgct atcaaataat atatattttg 60
 ttctcaagtg aaaattgcct ttttcagca tatttacata aagattcatt aatattagag 120
 aaattttaat aacaaaaaat atatcaaata tttgtaggcc aaccgttgag ttacttcctg 180
 aaaaagctgc gttgttaaaa agaatcatta attcatcaca acagctcata cgactattag 240
 gctctgatta ctgggtcaaag aaagcaaata ccttgatttt tttttaaata ttttgtcttt 300
 ttaccttttg ttaaaaaataa agaaatatat tataaaatta tattaataat tttccggcaa 360
 agaattgtta ttttgctgta attttacatt ttgtaaggca tttttggcta atattccgat 420
 catgtcagag agcaga 436

<210> 1629
 <211> 103
 <212> DNA
 <213> Ctenocephalides felis

<400> 1629
 gagtgtacg atatatactt tcattgtatt tatttatctg gaatctcggc acgttaatat 60
 cgtctcaaat tgagtagatt tccgttgcta tctttgataa atg 103

<210> 1630
 <211> 436
 <212> DNA
 <213> Ctenocephalides felis

<400> 1630
 ggcttttcaa agcgctttga atatcttgat atcaaaaata atatctgtag gtgtatctac 60
 ttgtgcatca gcaaaatatt ttctagagta ttttagtaaa caaatgtggg cgacgtaatt 120
 ttcttggtatt attaattcag atctgtttca tattttagat tttttattat tacaatgaga 180
 taagtgtatt gaatactttg ttataaattt ctataacctc attaaattta cgaatatttc 240
 ctcaatcaac atgataaaac tcaccactgg atatctaato tttttgttct aactttatgc 300
 atatttgtca tagtaattac taactgttta ttattaaaga aatagatagt aatttcattc 360
 tgagaaatga aaaataactt cgtgataaat aattctccag atatttccac ttggaaacat 420
 tttggctctt tcaagt 436

<210> 1631
 <211> 281
 <212> DNA
 <213> Ctenocephalides felis

<400> 1631
 aatngngact ttnttgnttc taaaaatctg ataaaatttt aaataacttg aagattaaaa 60

agcttttnaa aattcaacat acaaaaaaat acatgcaaaa gcaaataatac aatttttaaaa 120
aacctgcaan tgtgggncaa cancaactnat tcaacattca ccctgatctt tcattctttg 180
atTTTTtata agctacataa antgccaaatt ctttcttttc tttgntgata ttacgagtat 240
cgtattccaa tctgtgcatt attatgcgtt caacaagtcg t 281

<210> 1632

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1632

gttggccggtt gtgaggttat cgtgtgcctt gaatcgctcg aatctaagct ccatcgtgct 60
aattatttcg ataactccca ccccgactgg gacatctcga gagtcgggaa gcccctggca 120
aaggctacgg cgattttgtt taaatcagtg tctacagttg aacgggtcca cttggacggg 180
aaacagtggt catacgagat tattatata ttaaaattga ttgaaacagt gacaaaagtga 240
tatagtaaaa tattttacta actgttctta aggattcgaa tcataagatt tctttacatg 300
atggctgaaa tgaccgccag cacgcgcttc aaacaataac accaatcatt ctccaccaca 360
agtgcaacaa ttgtgaaata aaacttgatt ttattccaat catataaact ttaaatacag 420
tgcaactaat caaaaataatt tgtcggcaat tgtaaaaatac ctaagtgtcg ataagtctat 480
atgtgatcag gctaaagcct tgaaaaagaa tcttagtagg aatattagta ttcgtattaa 540
ttaattaat 549

<210> 1633

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1633

gctactccta accaaaaaac acatttttga taagttcgtt agtggcttct gtcggatttt 60
aatttttaat tcaatcttac atttgcaggg tcaaataatt taactatttt tatttaatac 120
agattctaac gataatcttt tattttgtaa tatgtctgaa gaaggaacaa cgagaagaac 180
tacgaggtcg cttgccaggc ggctgagtag tgattcaata tcgcctccag ctgcaggac 240
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accgaaagca gttagcactc gtaaattccc aagattaagt actgacttaa atttagaaga 360
acctggaagc agaccatcaa cacctatc aactgaaagg cgtcgttctc gccgactaag 420
tattgcttag atgaacaacg cccacaatct gtatcaactc tcccattggg ggagttatac 480
aagaagagga agacatcaat attttagcaa tgaaagatga tataaataat aaatccggta 540
tgngtgtgn 549

<210> 1634

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1634

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agttacagct cctgttaatg ctttagctga aacaagtcaa acttcatcaa tatttggtgg 60
tgctaaacca cggaagaac ccactgagaa ataagttatc aagttttaac attaattatt 120
aaccaccata tagaatacca tcttgaatca tgtaataatt tttcgattaa aaattctgca 180
aaactcataa caggcgtcga taatcttact cttgcaataa attctttaac tgatatataa 240
aatgtatcaa gttttgtaaa agaaaaatca ataattattg atttacagaa taaaatattt 300
attttgttta aaaattgact aatactttgt aataatatgt aattcttata tatatagatt 360
aaagagttgt tgtagtgtc tttgttttc aaatagtttt acactaatat atttaataca 420
aaacgcttta caaattttac aataattgat gaaaactatt tgagatttta ttctcgaagt 480
acaacttatg tattaaanaa ngngcnnnnt gnnnnnnntnn cctngggggg gggccggccc 540
cattcnccc 549

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<210> 1635

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1635

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tattgaacga cagccattga ttcaaaatga tggaactgga agccttagga atcaaggatc 120
ctatacgga ggttctcaaa ccacgacggt ttccctata ggtcctgatg agttgccacc 180
gtcttaccag ggaagttcgg ccagtggcgt gccatgggc acttgaggg tgtgtcaggc 240
catggtcgat atttcaggca aacgcgaaca gcatgtcgtc aaatgcaatc agtgcaatga 300
agccacacct atccgcaatg caccaccagg caagaagtac gttcgatgtc catgcaactg 360
tttattgatt tgcaaaagtt catctcaaag gatagcttgt ccgagaccaa attgcaaacg 420
cataataaat ttagcaccta gtctgtgac accacctgtc ctacgggtgg aaattttcgt 480
gccaggaatg tgcagggttt gtgtgctatt gtgggganeg tttttttcaa caccctaaca 540
atgcctcgc 549

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<210> 1636

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1636

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gctaataatg tgacagccat aaatattgta gattaatgta gaataatttg tattgagatt 60
tagattttgt agcatactag aatgttatgt gtgcttgaat aatgcaagt agggaaccaa 120
taatttggtc tgtttttata atacatttta gataataatt attggtgaac tcaatcttgc 180
atatacgccg ctaatgaatt aaaccagcag gcatataatt tttgtactta aatattttata 240
taactaaaac tgatacgggt tacgaaaaac acataactat attattttatg tttctagacc 300
cgcatgaatt aaaacgaaaa cggcaaaaaa ttgacgggga tccaaaacat cttttatggc 360
aactgcaggg tcaaaatcct tctacgagta agtcattttc aacttttatt ttttttatca 420
gcaaatcaaa cagggttcaa tgtcagggtga cgggtgaatca cggggtggat gaatataaaa 480
actcatatca tacgcttatt acatataaca ctaccatttt catattatca gtaattttct 540
aggagnata 549

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<210> 1637
<211> 549
<212> DNA
<213> Ctenocephalides felis

<400> 1637
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atTTtaatat agcgatttga atagttttaa tttatttgaa tattgttcag agtgatactt 120
tttatatttg ctgtaataaa aatgattatt atgataactt atattatgaa agggaaaata 180
tattttaaact tttaattgat tacccaagag gatattgatt tgtatatatc tacttgaata 240
tgaatttgaa cagttaacat tatcttcaaa tttttaatat aatttaaaat tattgggttac 300
tagcaaaaac gtcaagatgt ctaattacgt gttgaaagtc aaatcaaaag aaggacagca 360
tattttaaga gatctcaaat cttccatgac tctgggcgat cttttactga aactttcatg 420
ttgacatcga tatctaaacc aatttgcaaa ttttatcggg ttttccgcct aaagcattag 480
atTTtatctga tnagagtaag actttaaaagg ngagtgattt nattcaggag atctgtattg 540
tgaaaaaat 549

<210> 1638
<211> 549
<212> DNA
<213> Ctenocephalides felis

<400> 1638
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gtttggcatc agctcagttc cagaatggac gcatcttaga accaccagta cctgcactct 120
gcgcccaaag gacgatacac gaacgtagcc cagacggcaa aggatacttc ttctcgtggc 180
gtgaccacaa attggctggt gttgaggaag attggttggg cgtccgcaac ttctgtcggc 240
aacgttgcat ggacagtgtc agtttagaaa ccagtgccga aaatgaatgg atcaagcaaa 300
gaattgtcaa tggaaatgtc aaatacatct ggaccagcgg tcgtctatgt gacttcaagg 360
gttgtgaccg accagattta caacctgttt ccgtaaatgg tggttctgga ccgctgaatt 420
gcaaaaactt gcccaaccac agacagacaa caaaacgact ggtctgaagg agtgggtattg 480
tcttcctcac cagatacaag aattgaacaa ggtggacaac cgaaactgtt tgcagtttga 540
cactttaca 549

<210> 1639
<211> 549
<212> DNA
<213> Ctenocephalides felis

<400> 1639
ccccttcccc ccttccccac aaacatcacg tgtattttta gttatgaaaa aaaattgtaa 60
ttattttgat ttttgattt ttttaaaaaa aaattctctc tccctaaaaa catcacctga 120
ttaatggacg catcctattt gtattcctta tataaaaaata aaaaatgtga aatttagata 180
tactgaatga ttactcgtac caagagtcga aacatataaa taaataatat aaaaatcaat 240
ttaccatttt caaatttgat gaattgggtg caaactatac caaattcctc aattccaatc 300
atattcatat acaaaaatac ctatcaaatt ttccgattca tttaaaaccg attacaatca 360

attccattag gcaccagtat ttataaataa aattttgctg atatgtgtga acatatattc 420
 attattttat tagtctgaga aatagatgtt gactattcga gagagcagcg aaatgtcgat 480
 atttgccacc tcatcagatg ttggataacc aaccgntaat aaccgatttt tagggggatg 540
 ttaangcct 549

<210> 1640

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1640

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 aatcttacaa attaatctaa acaaaaatgt aacaatattg ctttaattaa ataattcgtt 120
 tattgttata ttgaatccac aaatatgaat tggtgattat tagcatcgtt tatttttgtt 180
 gtaaataact tatgcaaagc agagttgatc ttataaaaca tctaatactt attttattat 240
 acatagtgtg atacttgttt ttatttttaa tacattacaa actaaatgta gttcatctat 300
 gatttacatg aaaaaaaatt agttattatt tgtagtggtt taagacattt tacgcaatat 360
 ggcagtaaat aaatgctcac actaaaaatt attattaata tttttatagg aacgaaagtc 420
 tataattcta tacactacat cgctttgtgc aattgaaata atatttttca ttatattgna 480
 tgaatttagt atatcaaac atttaaaatg gttatatgta tacaggttca ttattgtaat 540
 aatgagaag 549

<210> 1641

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1641

gaacagttgg ataaaaataa aaattgtgaa ctaaaattta ttttcaaatt tcattaattt 60
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 cggttgtcgt tggtagtgtg gtgaaactat aaaattgtga ataaaactta aaacatcacc 180
 aaaaataatc cacacacttg cagtaaacia attattattt gtctctatag acagaaccaa 240
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 gatcatttat taatatatca attttgactt tcatcgattc tatctcggcc ccccttccca 360
 coatgacgct ttcggccaac agcaatgcta ccaatcgctt cgggtcgcag caggacgta 420
 gcctcaatta gccgccgtgc gaatacaggc cggcncagag gatatgcgtg cgcaagcagt 480
 caaacgttgc aaaatcaaag tgacgggtgca agagacagct gnagaatcta ttgacagaga 540
 tacgcgcat 549

<210> 1642

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1642

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 taaaaaataa aattaggatt ttttattaat atgaaataat aaataatcaa ataaatttag 120
 tgtaataaat aaaagtgtgc atgtgtcatt cttgattaat attcaacgca attaaagatc 180
 aattttgaat gtatcctctc aaaaattgtt gtatgaggag atgactagca aattttttat 240
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 aattataata gaggaagag ctagaatcc acatatcaaa attttaaatg gacctgttat 360
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 ctgtgtcgaa gaagacgatg atcgagtata tctaatttga atcagatcta cacaaatgag 480
 tggccatcct gcccatttta tagactcaga caagcggagg gcccttggan ggcagatgaa 540
 attcccant 549

<210> 1643

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1643

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 ttaaaaattc gtgatgatca gataagttac aatattttgc aattctttta aagtaaatat 120
 ccaaagtttt aacattataa aattaaaaaa aaaaaccaat gggaatttg gnttaaccaa 180
 tttttgnacc tnnaaagnaa ttnttttttt tgnaaagnacc nnntnnaaat tttgnttggg 240
 nccaantaaa aaaaccgng ncaggnatnt ntnttttnt acctnntgga tnnnttttac 300
 ctnttacnnt ggtttttaac ntattttaaa annntttgn tttcngaggg gttannttta 360
 nnaaatgnct taaaaatttt aatntttttn ttttnnaggnt tttttggggg aacntttttt 420
 aaaacctnt tnttananta ttcnttgga cccgtggnaa ncatttgggg ttantantta 480
 aaggatatng gnngggtttt 500

<210> 1644

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1644

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 tcatacttaa aatagttacc ctttttaatt tttacagtat ttaaatttaa tagttggtat 180
 agtattttat aaattttaat ttgaagcatt cctttatagg tttggaaatt atatttttac 240
 aaaaaaaaat aaccggtcca attgatttta aacaaaacca taaaaaacta ggtgctatag 300
 taaacagcat ttgatttgat gtatacattg cattgaaatg agtggagaag caagatgaaa 360
 gcctatccat taatgactta agacttttta gaaatgtttt atatatacat atgtatgcta 420
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 aaaactaaat ttatctctat 500

<210> 1645

<211> 500

<212> DNA
<213> Ctenocephalides felis

<400> 1645
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aaagtcaaat tgacccatat atatatatat ctagttttga tttttgtctt acagattatg 120
gttgtcgatt tatatatgtt tttattgaat acttgtgatg tttattattg atttcttttt 180
gtttgttgtt catcaacgtt ctttgtaac aaatggggga atagctagt aggaacccaa 240
gacgtcatat atctggccga aagcacaatt actgaaggca cacaccaca actacagtct 300
acgtcctaat tcatattaag taaaccaggc tctggacgtg cggccaacaa ttatggatac 360
cgctacgggg acctcaaaac tcgttggaac gtagcaacaa ttttttagagc cgagggcggc 420
tctggtgtga caggggggag tgtgacgata atcataatta tcgcgtattg ataattattg 480
tcgctgatgg tcgcaacccc 500

<210> 1646
<211> 277
<212> DNA
<213> Ctenocephalides felis

<400> 1646
actgaatgtt acaaattttt acttgatag aaggagcaat tttcgttgcc ctcgaccggc 60
gtttcgccag aatttaataa ttgtttattt tattgcattt aatcctcttt ttttaaaatg 120
atgcatatta taataatata cttttaaatt attattgata caactttttt gcaaaccaaa 180
ataggtatga tcttttaata atttttatcc catttaaaaa aaattctatt caacaaatat 240
ctttttttca atgcaactag gattttatat gttaagt 277

<210> 1647
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 1647
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acttatatat attaggcttt acaaaaatgt tatttggatg aactatttta tctattagat 120
ttacttaaac attatagaga taggaaaaaa tctcttaaac cattttgcta aaactttgag 180
aacgaaaaaa taaaacatct acaagacatc aagtcttttc ttttaaaaga gtaacactcg 240
aaaagggagc gttcattctt agaccaaaag aactacaaac atatttatatt ttataatata 300
gaattattaa tagtagtatt tttttactaa tataaatatg tttaatttca gggtattttg 360
actcgtcatc ctatcaaatt agtcaagaaa ataacgtcaa cagaagtcag aaaagaacca 420
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ataaaatacg aatgtggcaa 500

<210> 1648
<211> 331
<212> DNA

<213> Ctenocephalides felis

<400> 1648

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gattttactc accaatacat catacccat gcaaaaatac ttttatagag taatgcaaca 120
cgcttacctg aaacaaaata aaaattatta aatacattgc aaagaaatat ataaggcat 180
gaagaaaaat tttatgtaac gcaataatta tatgtagtag cagtcttaca aaaatatgta 240
ttaactaaca atatcaatag acaattatgt aggggccaat tctgctgtaa aatagaccaa 300
tgtaagtaa gggcttctca tacaaaattg t 331

<210> 1649

<211> 113

<212> DNA

<213> Ctenocephalides felis

<400> 1649

acgagttaat aaacnttnaa atataataag taacatttta aagntgcatc ttagtgaaaa 60
tccttaccat gttccttgaa aataataaaa caaantaaac atttggtcca tgt 113

<210> 1650

<211> 474

<212> DNA

<213> Ctenocephalides felis

<400> 1650

acaggaagtt ccagcaatgt gccttaaggc acgatgccat acgccactag tttttgtag 60
ttgtatgttt aattatgcat taatcaaata attttttcat agttcaaaac cagacgggtt 120
ttttttaaaa aaaaaaaaga attataaaaa aatatgttca atgtgacagc cagttgtgtt 180
catgcaaggc gacggaaaga gcaactcgtgt cgagcaagcg atttgccgcg tacacatatc 240
agtttggctt gacgagtatt tttacngnc ccgcctatag tgtgttaata tgatgcaatt 300
cagtcattat caacacgaga cagtctaata aaatttatgt aatttttagct attatatcaa 360
ttaaaaaata ctatacgtct ctatttatgt ttgttccggt tactagaaac tggatgaaat 420
athtagtcat acttttaaga agtaacactt ccaatatgga cgaatttttg ggg 474

<210> 1651

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1651

acatacacac agatatacat acatacctac acnaacacac acacatacat catttttttc 60
ttaggtatgc caaaatgttc agagggttt gaaacgtaaa gatatgtaaa aaatacattt 120
tcattttgtt gogaacatac cctactggaa gtaataaaaa atgcntgaat caagcacagt 180
aatgggaaaa aattaactaa aagggttagtt atcgataaac taaattaaat caaagggtg 240
ntttattatt tacagtttct caactacaaa ctatataagt caaactcaaa aaactataaa 300

tacttattcc aagaaattaa taaactttta attcaatgaa taataaaagc atttccctat 360
tattngcttc aataattatt ataaactatt aaaaccattt atacattggt tataacttac 420
aagaaagcan cttaataaac ttgaaatctc taataaacia cattingcaag actttntaat 480
ccatcaaaaa atacttgaca 500

<210> 1652

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1652

acatgctaag tatcaaggat gacgctgtat gtgaaaaaag tgagtgtttt ccgctttcct 60
gttgaaatct ttcttcaatt ttctttgcta caaacttcac ggagttcgag acctttccaa 120
cgaatgcaaa agattcgtgc gttctggagt tatatcgtca ggaaggaaaa cccgtcttat 180
ttttatataa tagataatat atactatatt attatagtaa tcgggcgtaa catcaataaa 240
aaacatgaat tttagtgtta aattagaata ttaactaatt tttcgactga atgaggggcta 300
ngaattggagg caacatatgg atgtgaaaaa actagtatga gagtttttag aattttttta 360
aaattcatat gcttcacta gcatagcctt cattcattgg caatcaattt aactgtaaaa 420
attaaaaata aataattttt tattaacatt attgtttttt tatgaaactc cttacatatt 480
atatttttag ttttaatttt 500

<210> 1653

<211> 226

<212> DNA

<213> Ctenocephalides felis

<400> 1653

acttaaaaaat aatttctata aactgtttta gattggaaac ttatgcacta aattaaaaat 60
attgnattga taataagggtg tgattgcatg tttaatataa aacctcactt aacctagaat 120
taagtttata cattatacac atcagacttg cttaacagca actattaaaa ataaatcaaa 180
tatggtatat caaaaatgat atcaaagtaa attggcatat caaagt 226

<210> 1654

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1654

acatttttaa ttaaactctt aaatgtatat tttttattaa tattatttgn tatctatcat 60
atgaatgaat tattcgtaat tgtcatatac gcttaactat ttctgtttga tcaagcttga 120
ttttaaaatt ttgagttatt atatttctgt gttcattcac tacatatgta ttatagtttc 180
tctacacttg tctgcaaaat cattcattaa attataactc atatccaata caaatgatat 240
gtttgtattt aaagaactga catctcgaaa cgcaaaaatt taccaagatg accaataata 300
tttctttcat tttcttatta tgaagaatca ttatttgttg taatttaatt ttgtatgata 360
accattgtga tcaatgctgt aacatttgtt aacaattaaa ttatatagtt tatgttgtat 420

acatttagac ctgtaagaag cgatatttaa tattatTTTT tataatttgt taatcttaca 480
tatatagata aatattatgt 500

<210> 1655

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1655

acattctgaa caaactagat aaaatgaaaa tcatgatatc agttttattc ttgttcttag 60
ttttttacgt aggatttaac atatcaactt ctatttaact tttccaagtt tcgtctttaa 120
ataaagtttg ttatcggcaa acacaagttt taaagagaat tattccgttt gtctatTTTT 180
actagaatac ttttttagtg taatttgaag tagtaagtag tatcttggaa aaagataaat 240
ttaacgtcct ttgtaatcga catattaata tcgaataaat ttgatactga tgaagtatta 300
tttgtttagca gaattttcca ataattagtt taccataatt tattaactga taatgcacac 360
aatttttttaa aaatatactt tttaaaatta aagtcttcaa ttatttcaaa atagttcaat 420
actcaatcta ataataaatt taactgttat tcactatcct gccacgattt ttaaattagg 480
cttcgttaaa ttcaattttg 500

<210> 1656

<211> 343

<212> DNA

<213> Ctenocephalides felis

<400> 1656

actaattttt ttaaacattt ttttaccctc tggcaaatat ttccctaact gtaatgtaaa 60
aattgttcac aaatggnaat tngcctgtca ttcattgtcg aacgttttaa tngcatgttt 120
gcatttgcaa cacgagaatc ataattctct tcttgataat ttatttntat gtcattttta 180
gtcatgaaaa tgaaatatat aatttgtaaa taaatactca gttcatacac gataatgtaa 240
ttataggttag tgttttaaaaa aatttagcgac tgtgaacaag atatcaaaaa aatacacatt 300
tatttatttc actatccaaa gttttcttac agtcctctcc tgt 343

<210> 1657

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1657

tcaantntga actgcantng ntaactgnnt ttnatgatch antcnattga aaanaaangt 60
nnctaanntn aaangggcct gacgncnnet gtcttencat tatgtntctat gctcatcagt 120
ttataagtta aagttgnca cctctcntnt atagnaaata natgatgact attgcgaaag 180
aagtctagac tataaaaatt ctaacatata tatttaggta nttgatccat anactaggga 240
gngaaagacg tttaanatac atggnntcca naatagtcaa catgatttaa ccacattttg 300
tatgttataa gtatgcaagc ntgttgtgcn tgagatcgcg accacgacct angtgatang 360
canctcngtn gcgaccactc taancngaatt tttgcngatn tacatcacac tggcggcgct 420

cgagcatgca tntagagggc caattncaac tatagtgagt gggaaaacna tgcagttgcc 480
 cnacttntna cttgcatgac 500

<210> 1658
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1658
 actataccgg tgcttaccgt ggcaagatga acgtcccaaa acgtcgcgtga tcaaattaat 60
 agtcctcgtg gctaatttat ttattctgga aaatcgtgcg atttgtttgt gttcacaaaa 120
 tttccgttta ccaaattttc ctctataatg ttcggagtgt tggccgccac ctcgatttgg 180
 ttactattgg catgggcagc tatgctaata tttttccttc cgttgatggt cgttgtgtta 240
 gcagttttgc cgggactgcc attactgatt attcgaaggg tgtgctacgt gcccttcgat 300
 tcgatttaaa tttgatttct tcaattaaaa aatcaatttt aaataaggca gtgttctttg 360
 aaatagttat ttaatcgtgt catttcatag tagttgtgat attatatttt taaacatata 420
 tcttctaate attgataagt atgatattta tacatagtct tacatattaa ggtataatat 480
 ataatagata tagtcgtatt 500

<210> 1659
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1659
 actataattt caattcaatg catttttgggt nagccaaaaa ttatatgaac catttgtatg 60
 tttgttaatt caacagttat tcgctctgga ttctttaaat tcgaagtgtt actatactga 120
 tgatattaca aatctactgc aattaaagat tatttattca ttgcaatatt agtatatagt 180
 aatattttatt agctctttga caaatttgtc tatcaaaata attaaacott ttcaataaat 240
 ttttataaga tacatagttt ttatctcttc tacttaataa aattacatca ttatttgaat 300
 taagtgggtt atataagtgc aattttactt atttacaata tttttctttg aactcattaa 360
 aataaactca atctctaatt ttatgagttg tccatttagt atgaataaat atgaacagtt 420
 tcttgaagggt ttttgatctc ggccatacca ttttttcata tattgtctat atacattttt 480
 tacaatgact atatatcata 500

<210> 1660
 <211> 343
 <212> DNA
 <213> Ctenocephalides felis

<400> 1660
 actagattat cctgatactt ttgcgccatt cctttcgcca tagaactagc aactaatttc 60
 tcaccgggaa tagcaaaactg atgtgaagca ccacgaagtt tagattcttt aacaacttgc 120
 tcattttcta gttcctgcag tttattataa tattcttcgc ccttcttact tttgactgtt 180
 tgctgccatt ccgtttccgc ttgcttaatt acttttgggtc tcaaagtgtc tggatttaat 240

tcaattcctc cttgttgagc caataatgct tgtctttctt cgaaggtctt ctctaattca 300
gttcctacac gttctttttg atattgtggt aggtcgtagt cgt 343

<210> 1661

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1661

ncttgtgcaa aagcaacatt ttgacattat angtnnggan attgaactaa attnaattat 60
aaaantatna ntnantggta aactnacant attgaacatg ttaatnttat attccatggt 120
tagcaaagaa gctcctaatt taaaacaata annnnatncn tgcgcnatca anctttcttg 180
gttgngcatg aagtgtgatc attaaattat aagtattctc aagtaagatc tgaaaactat 240
atcaaaaatg tataattaaa ctaaaaanat atatttatta tataaatntt cctatngcga 300
cantanncan tttttaatnt naatgagnaa tgtatnaagg tgagnntntg ctctgtgcgaa 360
tgntatnggn cnttnagana attnaagaat tatggtaant attntngaag ggattgcntt 420
atngnttcct aaatgncctc tggtagttn aaancttgta tgantngaga cacagcaaca 480
actgttgctg nntttatatt 500

<210> 1662

<211> 334

<212> DNA

<213> Ctenocephalides felis

<400> 1662

acactgcaaa atttcaaag cgaatatctc gaaaactaat agaccaagtgc tcataaaatt 60
ttcacagaat tttactaaca ctattgtgca taaacactat gagtttaatc gaaatccgag 120
atgataagac tttttcatca aaaaattttt agngtatttg atcagattca tttntnantt 180
tccggcggtt ttaaccagga aagcatatga gtattaaaat aattattata tggcggttata 240
tctcgctata tgacctacaa ttaatttcca attnggaccc tntatctgcc ccacacgccg 300
agcaatcgtc aaaaaagtga gaattttttt tggt 334

<210> 1663

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1663

acttaaacca agaaaaaaaa aaagctttta gcctggcggt gacatataga gaccataaga 60
tcgcaacacg agaacgatgt ctggacattt tcgaactcac atatactagc caccgcggtt 120
gtggcgctt aaaaacgtag ggatgaaatg tttacacaaa aaaagagaca taaatattat 180
cttgctgcgt tacttaaatg tctatgattt gaaatcgaat tctaagagaa aaggacttca 240
acgatattct acccttgcaa tatgatattt taaaataact ttcttttaaaa tatttacgac 300
tatatatata aaaaaaaaaa aataaactct actcacaaga acgatttcca tgaaacaaca 360
cttaactgta taacataact taatgtatct ggcaatcatc atagattttt aaaaaaaaaa 420

aaaaacaaat tattttatgt attggtgttt acgaaaatga ttatgaataa cacaatacac 480
 taaacaattt caataatgtc 500

<210> 1664
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1664
 accgtcaatc actttataag tcctttatat acttgaatat aaaaatgaag caaattgcta 60
 ataaaccttt cctcaaaaac atttgatgaa gagatttcga cttctcaatt tagcttcaca 120
 attcttcaaa tagagagtga aattacactg tagagactaa aacagaaacg aggcttttca 180
 tattttcacg aaacaatgat tacatattgt agactcatgt tcggtaacat ctattctgca 240
 taatcatgcg attagtgtt ggacacagac tgtagatgtc ctatactttc taagaatttt 300
 tatcgaagtg cacaaactag ttacattctt gaccaacaaa tatattacgg gcaggaaactg 360
 gaactaatta ttgatctgat caatagcttt tccctaatac ggtgaacgtg ccctattaac 420
 tttatactgt aatcttgtaa tgctcttact cggccataaa ataatgatgt ggaaaccgaa 480
 gactaaagcc taagcaggtg 500

<210> 1665
 <211> 433
 <212> DNA
 <213> Ctenocephalides felis

<400> 1665
 acacaacata ttaagctaatt gaactcattg nnaattgac ntatntatat tattnataac 60
 taaaagtctg ggagtttaca tatattaatt attttataac agcttgctta aanttgactc 120
 gttngctatg caataantac ctaattgcaa tttaaagttt agatctcgaa cttcacanat 180
 cntcctatta aaagntgttt acagnanttg gttnggatc nantgnntgg caaantaata 240
 nttnaatatn tgtatgnnag atttaatctc cantcatnat cttcatgnat tcatcgaaan 300
 cgacagttcc tgatccnna gtatngattt ncgcatgat nccntccang tcggacgagc 360
 tgagtntgag ncgagcgctc ccaagatctc cttcagccgt gctggntgtg angnaaccgc 420
 nccctcgtgg cgt 433

<210> 1666
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1666
 acttgtgcaa aagcaacatt ttgacattat aggtttggaa attgaactaa attcaattat 60
 aaaaatatta ttaattggta aacttacaat attgaacatg ttaattttat attccatgtt 120
 tagcaaagaa gctactaatt taaaacaata aataaataca tgcgcaatca atctcttttg 180
 gttgtgcatg aagtgtgatc attaaattat aagtattctc aagtaagatc tgaaaactat 240
 atcaaaaatg tataattaaa ctaaaaatat atatttatta tataaatatt tactatagcg 300

acaataaaca atttttaata taaatgagta atgtattaag ttgagttttg ctggtgcgaa 360
 tgtttattgt ttatagagat aattaaagaa ttatgttaat gaaaatgaaa tgtaattgaa 420
 tattgcatta aataaattaa ctctgggtta gtttaaaatt atgtatgatt tgagacacag 480
 caacaactgt gctgcattat 500

<210> 1667

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1667

actatacttt gacaaatagt ttatcatgta atntactaga ttaggatttc aaataattta 60
 taaactggat atacttctac tnccaatatt tgaatatgat atgaatgcat gtgtgtatgt 120
 atacttattg catattaaga tgcattaaca tagaattaaa tctcttggtt acgtatatnt 180
 aggatatcat acatactcaa aatagtata tttacaataa aaatataatt ttcttaaacc 240
 tatattaaaa tataaataaa tagtaacnac nttaaaataa cctggccatn attnnnagan 300
 ttgntnttcc ttttatnggc cntattann nnatncnttt caaanttggg nnnngnaatn 360
 cnngcncnna cttttatnaa nanantaann ttatgggcnn aanttanncc nnntggcnta 420
 tnngtcnant naatattcca ngngatagc atgttgggcn ngcctantca gcaaattngc 480
 ctanatgggc atgttntaga 500

<210> 1668

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1668

acatacacta agtcatatga aatctcggca agcgttaaaa gcacaatact gtcagttctt 60
 ttgaatttct aaattttaaa actttacttc gagatggacg aaaaatgttc accatccaat 120
 gcgcctaggc aataagaaaa attccaactc ttttctaact tgtttgccat catctctctt 180
 cttttcaata agaattgaaa agttataaat ttagcgtgtt tttgaatatg gaatagtgat 240
 aaaaagtctg cattttggtg atatatgttc tttgcgtata actgcgtttt gcttttgaaa 300
 aagtagttct acaagttaat agtttacatt ttagattgaa ccggttcacg agcgtataac 360
 tagtaaactc tgaataattt tctgggctga aaattttaat gtaacaaatc gacaattttt 420
 tagctaacca tgaattttga attttgaata attaaagtta ttttaatcgt cacgtncgcg 480
 cccactcgct tttttggcca 500

<210> 1669

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1669

catgtcaata gtttagcatat gtattaagaa ttttaacataa taattnaaac atcaatnaaa 60
 acaatataaa taaataaata attttngtat atcaataaca aatttcttaa ataactaatc 120

acattttataa ccagtcatt gttccttata tttatttttc aatatatcac tcgtctccaa 180
 ttataaaact ttgactagac ctgataaaat atttttatata taaaaatact ttgnttatat 240
 caccaatagt taaactttta aataatttca taatcacaag tgctatgata ttaaattaga 300
 agcattttaat ttatataaac atattaatag taaattttatt atgaaacttg gtaaagttaa 360
 taaatacaca ttaataaaat tcttttccaa tatatgcttt tttcttcgaa atgcctttcg 420
 atgaatatac attctaagct tctttccaat tcgtatccgt ccattctatc ctctgacaca 480
 aaattaattt cattcccntc 500

<210> 1670

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1670

ncaaacgtga ccatttttca cgtgacggtg cattgtgggt ttttggttatt aattttgttc 60
 ataaataaca tttcttggtt ttgtcaaaaa acaattcggg gtaattgttc ttatatgcaa 120
 gtttcaatta ttttataatt tgggttatat accaattaag taaaatccac tatttttttc 180
 atgtatctct accattttatt atttttatct ccttgtagta attacgcaga gcaatgtaaa 240
 taattcagat attattttatt cattaaaaaca tgacagattt attctcaaga taaattctcg 300
 acggagttgt atattttcca ctataaaaagc tgtaaaacaat ttgtaaaaca ttcattattt 360
 acctagaact actgctcata ttctatttaa aaataaatcg taagattatg ttcatttgca 420
 taataaatat tagcaaagtt tatagtatta taatngtaaa ttatttgcat aaaggngttt 480
 ataagtaatt agttttgtga 500

<210> 1671

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1671

acaataagga aaattttgca agcgaaagtt tttggataaa ctgaaatatac attatgttaa 60
 tgtttcatac actctacaac ttattgattt tttttttctt tttttgaaaa tgatttttag 120
 agtttgagtt ctgaatattt cgaaaaattt agaacacttc aaaagttttg aaatattaat 180
 gatgaatgtg gcatgttctg taaataattc aacaaactaa atattttata ctagattcta 240
 gttggataaa aaataattcc tgattttataa tatcattacc aaaatttctc taaacaattt 300
 accgtaggca aaattttggt agaatattgg tgttttttaa gnaatctcaa aanggnataa 360
 attcccaaaa attccatttn ttggggantt nttntcttaa tnttggaana aaaatggngg 420
 tttntttcca anatctttna aaaggggtta attantttcc aanngggttt tgngaataaa 480
 nattcaaaat tttgnccttt 500

<210> 1672

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1672

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actaattgat tattgttatt ctgcaagata tgatgttccg aattattact gttccaatta 60
attctttttac gaagtataac tcatatztat ttttactacta acatacttgt tactctctag 120
acatgtttttt gtttgogttt tgcgtattaa ttacttgtgt gttttgtttc cactgaagaa 180
gagtcaaatt ggaactcgaa ccgatggat ctaataaatg ttttttaaga aacatctctt 240
agttttcttt ctattcatta tctggataga tgactgttaa aaagtttggt ttatctataa 300
attaatttct tgaagggcgt aacatcaagc ntagagcggg ggtaggtat tcnaanncan 360
agggggaaac attatttgaa acatattggt aattttcgta tagaaaggga gtatcagttc 420
gcttattaat actaagtttg gctaagaaa taaaaatcga ttccgcatag cgctttatga 480
gactttcgct catgataaaa 500
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<210> 1673

<211> 441

<212> DNA

<213> Ctenocephalides felis

<400> 1673

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aaaaaactga ggtcgaagca taagtcgctg cttccactat cgcttattaa ttatactttt 60
actatgtatt ataaatgaat tgaaaatatt ttttatctca aatatctaaa ttgttacatc 120
tatacaggcg tttatcaaca tcaacagtag aatgcctttc tgatcttttg taaaacaact 180
tatattatca actgattttt caaaactttt gtttttttct atctgatatg ttttttgata 240
taacatgtta atgattgata taacttcaac aataaatgac atcatatttc agagaatcag 300
ttgccacaaa aaataattta ttaatattgt atgtttgtaa atttgtaag aaaagaaaag 360
caatatcttg aaaacatata tgtatataat attttaaaaa aaaaaagnnn nnnncnnna 420
nntntnnnaa anannaaaaa a 441
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<210> 1674

<211> 262

<212> DNA

<213> Ctenocephalides felis

<400> 1674

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actaggcaaa tcaatattat ctttttcgca ttcagagttc tgcaaaacac tttccgaacg 60
taatttctgc atttcccaaa aaagtcttct ataaaaatgt ctatctgaca cagtcgcaat 120
gtgtttgcga atttttttat cagacatatt tatttataca attttttttg acaaattaca 180
gagtcaaaca acaaacaat tacgaatata ttatattcta atattgttta gaattttagt 240
agcataagta tacgtataca gt 262
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<210> 1675

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1675

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acattttaata aaattttattg taaggttctg taggagaatg gaaaacgata ttgttaatac 60
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aataaaatac aaaatcaatt ttttaaattt atcatcatac aactgcaaata actaacatat 120
 attttttcaa ataaaaataaa gttgcttttt tgggtctccct taattaccct tcatatgaac 180
 tttatatcaa atgaacattt tatatatgta agcctttttat ctgataatag aaaaaaacta 240
 tagttcaaaa gcttttaggag aaagaaaata tccaatgcta tgtcaaaatc tttttcggaa 300
 tcttactttt caaacacttt ttatgcttgc atatgcactt tgtgaggaac tatagcagga 360
 gttgaattat aaggattgta atgcaaaatt tataatttca aatggccata gctaactata 420
 aaatcaaatag ttgatatttt cttaaatttt tccaaagaaa ttcaatgaca aattttgatg 480
 gttgtgtaga atatagatca 500

<210> 1676

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1676

acttaagaac aaaaatctgg taatcatttg tgtgaaagtg taataggaca aatagaaatt 60
 tatatcattc taagtcattc aataaatgct gctaataaat aattttcatg aataactcat 120
 caaaactaat tcagatttta atgattgaac cggtattcat taaagcaatc gttttctact 180
 aatatgaaat ttgcctttca actaaatttc ctttataagt tcctttgact gcaagatata 240
 aagagaaaat aatgacatt ataatgtttt atgtattcct atgtgagcca tttgcagtat 300
 tcgatataat actcataaat cagtatttaa atctgagacg cctgctccat gtcataaatt 360
 atgaacagtt attttcctca aatcctacac agtaattatt tgatatttat atagatgata 420
 taaataaaat atctttaatt tcgttttggt taatatttta tggaagctga aatcaaaaac 480
 atctgctaaa ataattaatt 500

<210> 1677

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1677

ctggtaacga ggaaacacta tttttaagag cagaagaacg cgattattca aatttaaaag 60
 agcaciaaatt tataccaaag caagatggca aaatcatgca agtgaagcat aatggagcta 120
 gtcatatata tttatatattg ccagccgata ctgatttgaa agatttagat tcattatttt 180
 ctcatggaga aaagacgctt ggagactggg aatcagctac cgatggatat ttctgtgatt 240
 tggatgaaac caatgaagcc aatcagttt gtatttctcc ttcagaagat acaacaaaag 300
 tgaatcaatc tgagctatta gacgaattcg aaactaaata tgtcaatgaa tatgtagata 360
 aaagaaaagga aaaatgtccc aagtaacata aattatattc ttacaataac ttaatacata 420
 tattaaaatt tttgtaacag tttatgtgta tgagttttaa caataaatta ttaaaaaataa 480
 gattttnaaa aaaaaaannn 500

<210> 1678

<211> 330

<212> DNA

<213> Ctenocephalides felis

<400> 1678

acacgttttt ttctaatttt ttgagacttt gcaaattttt taaaatatcc gatttttttt 60
 aaattaacga aatatttctt attttttgta agcaatcttt ttataacatg tcaaaattta 120
 gtttttttgc tgaaaataat gaaaaatttc ggaaatttga atttttttta ctttgatttt 180
 ttttgaaaat tttgattttt ttttgaaaag ttttaaaatt attaaatttt ctgtaaatgc 240
 atttttgcac actgtcttct caagcaaaat gtaaaatgaa atttatctaa tcggatgagc 300
 cgttctctca aaaactgcat aaccgtttgt 330

<210> 1679

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1679

actcatttta tatattctcg gtggataaaa tataattaat tatgtcgcca tctaacggtg 60
 tgcttttaca ataaccaaaa tctggtaggg gggcttttga cccgacattt tgagctttta 120
 attttattcc ttattattat gtaaaatata gttgttaaaa atacatggct aagacagcat 180
 cgacgtttca ttttaagttta atatacattt tggcttatcg acacggatcc agtcattaaa 240
 aattacagtc cacgctttac aattaaatat ttgcgagttc gtctaaaagt gaagccaaat 300
 aaagctctac gtgaatgaaa acccggggaac ctgagaagcc gccattaaag cttggaagcg 360
 tcgccaggag ttcactggaa ttggaaaact ataactaaag atcacaattg gaaatacaag 420
 taaatccaca attagtctaa aaccattttca aaattgctta gtattattgt tgtaagttta 480
 gtctatgtct cggccgcgac 500

<210> 1680

<211> 187

<212> DNA

<213> Ctenocephalides felis

<400> 1680

aaattcctac aattattttc gaatgacata aaaaggatta aacagcctcg aaatgtcgct 60
 gtttgtaatt cagcactg taaaagcctc cagaaatcag acaggatgga tcggaattgc 120
 ttgtctgcag caggcctctt acagtacaaa gccccagaaa accaatctgg ctgctatgaa 180
 aagaggt 187

<210> 1681

<211> 412

<212> DNA

<213> Ctenocephalides felis

<400> 1681

acctccaaat aatgaatttg tcgttctctc tagattttaa ccagttcctg aatatcaa 60
 tcattaagca tttatgtatg actatgtaaa ataaatgaat ttatatttta tcatttttct 120
 aattcaatta taatgatgaa gaataaaaaa aaattcatct tgtcaaagat aacttaaaaa 180

ataattaaat ataaatagat ttatctaaaa gcagttcgtc ttatgagaat ttatatggaa 240
 atgctatggt aacttgtagt gccgtgtgtg attttacaaa ataaaacttc ttacctaaag 300
 tgggtgttggg agaagtgttt ccaaaaccaa atgtgctagt tgctggtttg ttaaatgtat 360
 tattaaataa agagtttgaa gtagttgttt gaccaaacc tccaaaacca gt 412

<210> 1682

<211> 380

<212> DNA

<213> Ctenocephalides felis

<400> 1682

acaacaggca ccaccagaga acatggaatc cgaacgcca catttcgtcc aaccaagatc 60
 tgtgcgagc atcaaggaga atccccttcg ccgcgaaaaa cgcgtaaga gatgcgctg 120
 caactgcgaa tgttaaaca aaaccccaag aaattattta cgaaagcatt gataaaatca 180
 ccgctaaacg gaaataattt ttaattcaat aaaaaatatt ttgttaaac atattcggat 240
 attaacaaca tgtttatttc tttaatttta aactaatgca gttattaatt gtataaataa 300
 aattagagat ttttattaaa gaatgacgaa aagtttagat caaagtcttg tatatatgtt 360
 cttttaaacc tggtacacgt 380

<210> 1683

<211> 182

<212> DNA

<213> Ctenocephalides felis

<400> 1683

acaaaacaaa aattcggccc agtaagggtc gaaataaaaa ttacattta tccgaaatta 60
 aaatattttc aaatttaaca cttctgcata aagttagtgt tttagtttat gattatatgc 120
 agttattttt cccggcaatt ttaaattaca tgtgaaaacg cctagctaaa tctaactaca 180
 gc 182

<210> 1684

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1684

gacgtgcnan ttanacna nnaantgggg gttgaanccn acctgncna aaccgggttag 60
 agctcagatc atggnngant ganggganga acagaccana taaagcaagt tctggatnng 120
 anaantantt tacaccaaca ncnacggcgc gancaatttt ggcggnangt nctactaana 180
 gtaangacgc tgccatccct tangcggcgt aacntnntan gcacacacag nggccaattt 240
 tcaattatat atgcttaatn aaaagangct tgntaagctc atccggtcnn cccaatgaaa 300
 tatangnagc tanaanaaca tantcctant ccaaancnat ntctatacnt ctntaannct 360
 tnaangggtn ntctcgtctn ntnnangtcg acgctcatnn catnanaggg nccttctatn 420
 cnattgtgng aagacagcaa tatttgntcn atnattantc ngcttncaan ggaaaaacct 480
 ntgttatgct cctttggcag 500

<210> 1685

<211> 377

<212> DNA

<213> Ctenocephalides felis

<400> 1685

```

accaaacggt aagttactaa cagaactttg gaaataccta cagttaaaat caaatttggt 60
tcacgcgcac ccattgctcag aatatcaaaa ataataaatg aatttgcttc tgagattaat 120
atcttttggtc tgctgatgac aaatataaaa aatcaagcca gaaaaattat ccttaaaaga 180
ctgtcttaaa tagtgattta tagtaatttg attaaatggt taattttatt agtttttatt 240
taatgttata tatttgtagt ttatattaag tgttatgtat atatacaaag ctatctatga 300
actcttaata ctctaatttt ctcacatatt atctctttaa tttataattt gtagacttca 360
aaatgtaact gtattgt                                     377

```

<210> 1686

<211> 333

<212> DNA

<213> Ctenocephalides felis

<400> 1686

```

gnncttttat caagtagatc cttattgttt ttaataaata ancataaaat tattctacat 60
aatgtcttca nngcgccctt ttgttagaag caccgtaaat cgcatgaatg ctgttcgtgg 120
acaatgtaga aacagctcct acggtcatca tggacctcca gcagattatg ttcctccatc 180
catgaatgag ctaccaactc cacaaggatc ctggcaagct aaacacgatg cccgccaaag 240
gaaatataat gcaacccttc ttgctggcgt tgggtgtcttt actggaactc tcatttttat 300
gaaagcaaca gggttcgact tccactacta tcc                                     333

```

<210> 1687

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1687

```

acatttactt cttacactgt atctggaaaa aatactgatt tacgctaact aattttaagc 60
atagtggttt tgttttgact tatagtataa atacatgaag cattactcaa aagggatcta 120
gtccacaggc aagattttta tttaacagat tatagtaatg cgaaaagatt tagatctgcc 180
ataaagtaac tgaaatggcg aatcaatctc gcaccaaaca gtattttttc agaccgttat 240
aagtgccatc aatattatgt gcttcgtaat cgcataataa atctcgagat agaccagatg 300
gctccactta gacgaattta tacgagattc taaataattt attgtctatc aacctaatca 360
tatataaagt taataacca attcagtttt ctgttaactg tggcaaagt ttgttttagg 420
gaccacacct aaccaaggaa ttcggttgag aaatccacac gttcttggtg tatctgtggc 480
atcaaaaatg aaatatttta                                     500

```

<210> 1688
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1688
 actaacattg ttgttgattg tttctatatg tgactaacta ttggttgaga ttaaaaacta 60
 atgaactgac ttctctcctt ttaacttccc gtagggtaag ttatagtaat cgcaaaaaaa 120
 attttttata tttcacgttt cagaggtttc taaacatttt gaaacgtaaa gatataataa 180
 aattttcatt ttcgattttt ttttttgcca ttactataac ttgccctatg ggaagttgga 240
 aaaattaagc tatgtatata catttttgaa attgattcac gatttttgga caattttaca 300
 cttttctgat aattataaaa aaaaccgctc gcctgatcgt tgcgcaaaac taataaacgc 360
 taactcacta agttaaatag aatggtttta gtttttttca gtagaaagga gaaaacttgc 420
 ttaactacac tattttctaa atttgactt attcgattca gaatgacttg aacgttgatg 480
 aaacctaata ttagcccatc 500

<210> 1689
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1689
 accgccacat gagcactaag ggagcgccaa ttaatcacgt gatcgatttt ttaaggatt 60
 tttaaacctt tgccttggt gatacgtggt gatatccaaa aattttctga tatttttcac 120
 ttgtgaattt agactgntga aaaatttaaa agtttactat tgtttcatca tatcataaaa 180
 aattattatc tcgctcttca ataaaacatg gatttaaaaa ttgaaataga agatccaagt 240
 taaatgttgc attatcatta tttaatccag caataaatat atctgcacca aaatttgcct 300
 caatacaatt tgtattagtt gcaataaaaa ccctccttat aaatttcaaa aatcacttta 360
 ataatatcga ttactaacga ttattatttt taatctctta atcataggat taaaaggnca 420
 cgtagccgga gtcacatgca tcgccaaacta ccggattagt aatagatcac atagaattag 480
 aaagaacggc catttagaag 500

<210> 1690
 <211> 110
 <212> DNA
 <213> Ctenocephalides felis

<400> 1690
 acaaactttg taaaaattta gttaataagt tacttgtaag ccatttattt ataacattca 60
 aaacatctcg taagcaacat tttaatggga aaattatttt accctcacgg 110

<210> 1691
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1691

```
acgaggtatta taatatTTTTg aatttatttaa cgcagcaatc ttgacccaat tatctggtaa 60
aattatactc ttttctcttt gaaaatatac tgtttgattt tcaaaaaagt atgcatttca 120
cacattttat gagtagttgt gtgaaacaat tggatttcaa attattttta cttaaaaggc 180
taataattat atattatttg atatcaatat taagctgtag tgatatccat tttcacttga 240
tagattacaa tgtaatttca agtaaaaaata ttctaaaaaa ggacccattt attataatat 300
gttattagtg ttagaaaaaa actgaaaaat agatcaaata tagataaaac aaccggattg 360
cctcctaaaa agtcacgttg ttaagtcact tgcttacatt tttagctcat agaatttctca 420
tgttctgatt gatgttcaaa aaattcaacg gtttctccgt agatcagtgg tagagctttg 480
ggattcaatc taaatccaag                                     500
```

<210> 1692

<211> 351

<212> DNA

<213> Ctenocephalides felis

<400> 1692

```
ncgcgttgta tttcacacta gatcttgccct gccgagcatg tttttatttt ttacaaccaa 60
cagtagntta tatgatagat gcaaatattg aattaaacaa aaatcaaagc catagttagg 120
ttacatccta aaaaaaattt tggtaaaaga taatacaaaa tatcttagaa ttcaatccga 180
gtcattgaag catttattat tgattagcaa aaaaatatga aataattaat aaatattcca 240
aatcaaatat tagaatctat ctatatTTTga tatcaaacac aataatactt tacaagtatg 300
ttcatatcag ttttaactta tagaattttg ataggaaaaa tcttaagaag t          351
```

<210> 1693

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1693

```
acnnagtagt attgaagatc ttttgncttc tggtgattnt tcattgacta tacagngtnc 60
anncttgttt aatatctgaa nnataaanat anatatatat aattatcaga ggtatttata 120
ttaataatat atacctntga aattatttca gttcccatag aactccctaa tttattataa 180
agctcgccga gatttgaaaa tgctgatgat cgaaccaaaa aatcctcatc atgtgtgcc 240
ctcagaaaag tattaagaaa tactgtttta tacttttgga caattgattt ttctggaaaa 300
taagataatt ataaaaatcc atctctaata ttttagcaac tgaattaagc acctgcatta 360
aatattaatt ttactaatgc ttcaccaact ttaaatctta gctcttcttt tccatccttc 420
tgaaatttat catgtcgatt atttaaatat tcttgtgtca gcaattcaat tcacttctctg 480
gcatactttg gaaacttctg                                     500
```

<210> 1694

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1694

```

attagctgta gcagcattgc ttgagttttg agttgataac ctgcaaccta gcctgcgact 60
tctgttctat tgataaagga gaaataatta ttttatgtcc aaattacagg gtgataaaac 120
ccattgacgt caatttgaaa aaaaattcaa taaaaaaaca atggacagga ggatgatata 180
ttaatagaat gtgcctttat atcaataatt tcgaccacaa aactgcctt ttatgaatta 240
aaatgtcttt aaaagaatgt gaaagtgata taaaacattt aaaatcagaa tctatgttat 300
ttgcatgtga agaaaattcc aaagaaaaca gtgcaaacta tttaaatgga aaacaaccaa 360
tcaagaatgt gagtaataaa atattaaaaa actgtcaaaa tgtgacagct ccattgaggg 420
aaatataaaa aatagcagcg atattgcacg aaaacgatgg aagatattag caaaagccct 480
aaataaacgg gcacangcat caatggaaga tatttctgtg cgtagattca caccttcgtg 540
tattaaatc

```

<210> 1695

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1695

```

gcgcgaacaa caacagttca gtgcgaattg ataaagttat cagcaaaaaa taataaaata 60
acagtaataa tacttgtcga taatttttaa cttgtgcatt tattactagt ttatttccag 120
aagtagaaat aagttggctc gactattgga ggaggtttat ttactcataa aacgtaaaga 180
aattaacatg taattacagg tcacaaatat ataattagca aatacgtaat ttagctagag 240
tcattcgtgc gtaaactaca gcaccgatca tttcaaagga aatcattggg aaatttttac 300
aatgtggata cgttggtttt ttatttttaa tatcgcggtg gtatacgag gaaaattcga 360
agaaatctat gcttggaag acgtagattt tgtgtggcct tctaataaaa taaaagaaga 420
atatattaaa aatggtcata catcaaggaa aataatctta tcttggaat ggccaggtgg 480
caagataagt ttttctcaca attccagatg gaaaagtgga gtacctcaca ttggctatat 540
ccacttaat

```

<210> 1696

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1696

```

gaggagtcgg tccttttagcc tggggtagag aaacacatcg aaaaccgcag acgcttccac 60
caaactctgag tccaaaattc ttccatagat cgccaagaga agcattgaga agagtcacta 120
gtctattgat caggaaaggg gcagctggtg gaggcacgcc ccgtgactcg cgtaaagaac 180
gcgagggcag cgtgttccc atgccgcttg gacaaacggt gcatagggaa gcttttagagg 240
aagtgggtgcc taaacaaaga agaggatttt tgaaaaactt ttttaagaaa tctaaacatt 300
actcactgga ccagtaaata atcgaaaagt tgacaattta ccgagttcta tgttttttag 360
gcataagata atatgtacac tgccctcaac tttagtccta accataatat tagcattgaa 420
tactactgta gttaccggtt ttaggttgta ggattattta tttattctaa taatgaatta 480
caattaaccg tctgcatatg gaacgaaggg gaagtaagac agtttgcaat aaaatagtcg 540
ctgagaaat

```

<210> 1697
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1697
 aattgatgaa gcacatgaca actctagctc ttctggtgat tgcattttga tagaggatga 60
 tcctattgca gatactggaa ataaccaata tcttaagttt gggaaagata ttgaattaat 120
 acgtatgggt gaatcaatgg cacagaatgt cgtgtctcct actgttaca ctcctaacng 180
 aggaaccatg ccaaggaaac gaggaagacc aagaaaagat gctaacttaa ttgcgcaaaa 240
 gaaagaacaa cttgctcaag aaatgctaca aaacagtctc tttccagcac agcatatgct 300
 tgaaggtcta atgactggat ctggtgaaag cccagttaga acaagtcgta gaagtaccag 360
 aggacgatca tcagtgggta aaggaggtat gatttctacc acaccaaggg ggcgtggcag 420
 aggccgtggc tctaaacagc aagctcttca gggttcaatg gaacagcaga ggattcaaca 480
 natgctgaat atccaggaca aatcattcag cagcaagctt cgggtgataa tgccagggtgc 540
 atgaaaagt 549

<210> 1698
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1698
 ccgtaaattc atattctaaa cgcacttgcg aatactttta ttcgacattg taacgttgac 60
 tatgcttatt ctgtgagaat tttcatgttt tccaaaaatt ttcacaaaac tgaaagagt 120
 ctcccgtaaa ttcacattct aaacacattt gcgaataact ttatgcgact ttgtcactta 180
 gactgtgctt atcctgggcg aattttcatg ttttccaaaa atttgcacaa aagtgaaaaa 240
 gtgcttcagt tcagtcacat tctaaacgca tgtgtgaaca catttgtacg acgttttcaa 300
 aaaattttca caaaattgaa aaaagtgttc ccgtaaattc acattctaaa cgcatttgct 360
 aatactttta tgctactttg tcacttagac tgtgcttatt ctgggtattt tttcacattt 420
 tcaccagaaa aaaatgtttc gcttcacaca tacttggaaa aatgctcttg taaatcagat 480
 tggtatttgg tcttttggag gtgggattgg tgnaaacgct gacctacaca atcgtgctac 540
 aactcatat 549

<210> 1699
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1699
 atttggctcg tgtacgatgc ctccgaagcg tctttgaagt ggtcaatgtt catggggctc 60
 aactgttcct ataggctcac cggccagttt gccttacgat cagtaatgaa ctagaatcac 120
 tttaaatacc ttcgcatcaa acaattttta aatagtacgt aatttacaat tgtaaacaaa 180
 attgtcattg tatatactta tatgtgtata tgtatacaca tatatttata tagttattta 240

tacatattat atataatata tatgaatatg tatatatggt gttatcgata aaattaattt 300
tcactaacac attgttaggt tttttaatat gttttaaaact tcatttcgca attttatata 360
aatatgatag ataaaatggt gtcacgataa tagttgattt gaatatatat gtagatagag 420
aatgcaatca tttggatgat atatttccca aagtgcaatg tttattgcta agatatattt 480
acatagggtca tgtatctagt catgtattca agttactatt cgtgnaatga ataatacagag 540
tatttggtata 549

<210> 1700

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1700

atcgacttaa taagatncct acgaaagtgg aattgattaa gaaacgnagg tccttaataa 60
aagacatagg accttaataa gagatacagg cccttaataa gagatataga ccctttgatg 120
agacgcagtc gacgcagtac ctctgccaac ccttaggaaa gacgggtggag tcgctgggtg 180
gggatatagt gtgttcgtga attttgtgca aaggaatagt gaaataagag atttgtttag 240
tgaatattgt aacactgggt gttctactgt tgctgtttta ttatttagtg aagaggaaaag 300
ccaaaacaat ggtttcgtcc cagaaagtcc ctttgggcag ttgctgccgt tgctacactc 360
tacggacggg caccatcttc agtgggtgtaa tgggaatatt attggcggtg gtcgcttaat 420
attgatgttt gcacttcggc gagttcaaga caataacat agtcagtctg catcggtgat 480
cgtaaagata tattaccatt aatctacctg actgtctcat atcggtatgt tgatatagga 540
gccgtaagc 549

<210> 1701

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1701

gcggtaacgt cattcattgc aacattaata tgggtgttcg tttacctgct gggaattcga 60
gaggtgctac aacttcccat caactggctg ttgacggagc tggttaaacac tggcatcatc 120
accgtgctat atacgatcgc tttcattgtg cagttagcga aatgggtccc gggttggtg 180
gttcattcgt cgcacaaac attacggcgg gagtttttgg aattttcaat gcattggogt 240
atgctgccgg agtttacttt ttgcaacttg aatggaaaag cagcggcggg gcatctacga 300
actagtcctg gttattatag ttcatttact caacaccggc tgttgatttc atatcaacta 360
tttaggataa aattccttatt atatttatcg ccaaacagtt tgtatgtata agtacaaca 420
attcggtgaa gaattatgtc gaaataacga atataaaatt tataatttttc taaatgtttc 480
tatatgaatg gttttatata aaaattgata caatatttca taataacctga tgaattatat 540
agctggata 549

<210> 1702

<211> 549

<212> DNA

<213> Ctenocephalides felis

<210> 1705
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1705
 agattccttag tgcgatatag gatataacat cacaattagt gaaattgatt tgaagggaaa 60
 aatgtcggaa acgagcgagg gcgccatcc gttggtatgg tccgcgggtt tcattgcctt 120
 taccctcttg ttggcgcaag tatgccgcat ggccgcctcc aggacgcagc gcggaatgat 180
 ccgatccttg attttggaag gaatcgccgc cgctgaactt tgtgcttcct gcttcgaatt 240
 gatcatagtt gccgacaact acggtgtatc tatgtacgct attttcctgt tcgtcctgac 300
 gatatggtgg tccatggttt ggggcgatgc cactgcctgc ccgtatacgc ttctggaaga 360
 tgtcgtggaa gacaaagcta cattgcgcga agctgactga aaacttgggc acaactagtt 420
 ggcggtgtct gatatttcgt atgtcaatta ttttggtatt tggagcttct caacgcatac 480
 aggaagagca tttgaaaact gacggtgatt tacaggtatc tctatgctag gaacgnaata 540
 gaagattgc 549

<210> 1706
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1706
 gagagagaga gagactgttc gaggaagcaa tgaaaagtcc acttaacgcc gaacctgtaa 60
 ataaatcatt ccatcagtat ttgaagccgt ttttgcaatc caatctgtga aaagaaaata 120
 ttctacattt ttctagataa agtggaatga attgaaaata ttaaggagtg cacgtgtttt 180
 gttttgcgaa atgctatatt atctgtccat ttatacacia gtattcagag attaaaaaat 240
 caattactta aatcttattt tgaatgccac atatttatta caaagggtt caactataaa 300
 tttatttttag atatatactt atcaggatat acctgataat tatgtctctt ttctgagcat 360
 ataattgatgc attcacaaaa caattttgaa caaaattaga aaaatgatat aaaatgtaaa 420
 tgacctattc ctaaatcatt gttcatatt atttcgcctc catttttttc cagcggttta 480
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 gttagatca 549

<210> 1707
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1707
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 ttagttattt aataataata acctcaaagt ttatgacagc cagtttcata acattgctag 180
 tggtagagat tattagttag gttttatcag atagtgcacc tcttaataat ctgacagcag 240

aaaaaataac aaaatatgtc agattc gatg tcacttcatt ccacatcggc aaaattgatt 300
 gtggaaaatc ctttatggga gcaaaaatcgc ttcgttggtc gggtccgtca cttcttatgg 360
 atgaccgatt ggcgatcctg ttttgcttca gaacgtgatc tcgataaaagc agaagagttg 420
 ataaaaaaat gcaaacgcgg tgaaggatgc ggtgatgcgc aagggtgcgac ttgattaccc 480
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<210> 1708

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1708

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 attaatacaa tgaccagtgt caatctgaca agaagatgtg tcctgtttgg gtggaagcat 180
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 gtgccccaga tatctgtgtt gtcttcaagt tttatcaaaa gcagattcta ttcgacacag 300
 aaaaatgaac agagtgtctat gaaaccagac gatgatgatt ctacggataa agacaaggat 360
 aaggaagctg ttaagaagga ggaggatgtt aagaaaatgg gtttgtaag aagtttaaac 420
 aaatgtacag ggattctgga tgtgtgatc cgggtgcatgt tgcncttcta cgtgctgggc 480
 tgnctattta ctcccgcaaa agtgggtgtg tgtgatagca tcctggatcg tcaagcagtc 540
 tgactatcg 549

<210> 1709

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1709

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 tcaacaatgt catagaacac taccggggg ctgctgaaga catggctaag caaagacctt 180
 tcggaaacac cgaagatttg atacagaaat ttagtgatta tttggaaaat ttaccaaaaa 240
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 gcaatctgac acctgagtcg cagaaggagc aggaggcggc aggtttgcac aaattgtctc 360
 aagaggaaaa acagttgatg accgacttga atttagagta caaaaagaaa tttggtttcc 420
 ctttgtcatt gtagctcgtg aaaacaaagc tgcagcaatc ttaaaccggt aaaacacgtt 480
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 atcttactt 549

<210> 1710

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1710

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ttatcaaatt ataatagcat ctcttacgta ctgtgtgttt ccagttcta atcagtgttt 180
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gaaagcacag tcaattggcc tggcaacagc ttcccttaca tccagaaaat tncaaacca 480
tccactatgt cgatgagacc tcgcaaagga tcacaattag aagctagttc atcgchangac 540
acctagnga 549
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<210> 1711

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 1711

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catttgatat atgaagtatc ggagcatgtt ttatttgtgt ttattttatc atcgtatatc 180
taattgttta tttaactgaa atgtgttta aaaatattat ataattctta cttatttatg 240
ataaaaattc aatttccatt taattataag attctttgac aggttttaag actgttgatt 300
cgttttaacc acatttagag caagagttaa ggtaacata atcagtataa tatttcaata 360
atgtgacaat gagtaatatt tgtactattg taattgtact gataacacaa atctctaaca 420
tataaaacat attcattttt cttcaaacat aactaaatcg catttttgat tatttgacat 480
atatatatat acatcatcat cntacatata tatatatata tatatatata tattatatat 540
aaaaatatg 549
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<210> 1712

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 1712

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atcaatcaaa gtgtttttta ttaatactgt tgaacatcaa aatgagtgtg aaaattgaaa 120
atattgaatc ggaaaatcca aaaataatac aaccgcagta cagcgtccaa aatgtctgcc 180
cgcttcaaac aagcgctact gaagcgctc tatcaggaga aaaaggaaat gatagtata 240
gaaaagaagc aaaccaagtg ggtgcaaca atgggaagaa gaaaaaacat agacgaggta 300
aatgtaagag aaaacctaata aaaccgtaca ataaaacagc ctggacccaa cgtaagaatg 360
tccaaaaaga aatgatgaga gttcgtagtgt cccgtgctaa aatattagcc atggggcaca 420
cattagtctc ttgtaacacg aaccaatttc tcatggaaga tcatgatgtc ctcaccaagg 480
attcatctgc agactcggac tctacttagt gtcgttctga agacactctn atgtcttct 540
gagatgagn 549
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<210> 1713
 <211> 506
 <212> DNA
 <213> Ctenocephalides felis

<400> 1713
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 tatggggttag cagttctaga acaattgaac tttatgaaga tttatctaaa ctctgtggaac 180
 cagtaaccaa agaagttaag caaaagattg agcttccaga tttgcctaca tctggtgaag 240
 ttggtttcat tgcaacttat tattggaatg cagggtgtgaa agctacattt gcatttttaa 300
 aagaatttcc aacgaatact gctcgattgg gatgcaaata ttataattat attgtaaatc 360
 atcctgaaat aaaaaaattg caggagcaaa cagaaacaaa aacagaaaag aattgatatg 420
 tatatagaaa aaaatcatga ttatggatta tgtagataat atttaataat aaatgctata 480
 catcttaaaa aaaaaaaaaa aaaaaa 506

<210> 1714
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1714
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 acatttgtac atcattgtaa ttgactacga attaacagca atgataaaat actttatata 120
 tgtatatata tatatatattg aaaatctgtg taaaaccgtg tacaaaaata ntatacanga 180
 caaaaaaaaaat attacatcat ggcaacctcg actgtccatc tntcaattaa aatctacact 240
 atcttttgtt tgttattaac attttcctat tggatttaat tattaattta aatgctttca 300
 atgattcaat tagcggaaatc attttgcttt ggatatcttt tcacatatct cgtttgtgaa 360
 ttctgaacac ttagcgttgc tcctaaatca cctgttaggt atttggcttc acggattgct 420
 cgaaggctgc tgtttaatta agtctgcgtg tttgaaggctc atgtgctcag catcattcgg 480
 aggatacaag agggcagtggt ggttgctttg cttgccgctt gctgggtgnc gtgccagatc 540
 aaangcgt 549

<210> 1715
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1715
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 aggaccccg ctcgatanaa ggcttcgatg gcaacatcca cgccctggac gcggctgaat 240
 tggacttctc ttacgaatg ttagctgctg cagttcgatc tgcacctggt caaagtgtat 300

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ttttttcacc ttacagcatt tatcaagctt tgctcttagc gtattttctct agtgctaacc 360
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ttctgcatgg atataacttt gtgagaaaaa tgcttgagata tagaacgaat caatcatatg 480
aatcaatntg ctgtcgcttt tgtactaaga tgaccanttn ggattgattc aagctgcatg 540
agagacaaa
549

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<210> 1716

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1716

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acctccaggt agtgagtcta tgttcatcac aacagctgat aaagaacgat atcaatgttt 120
tgttcctaaa atctcaacac cagagtctga aaaaaattta ccatatagtg gaccaactgc 180
gttagaatta ttggcacctt tattcacaca aactgcttgt tcatatcgtg ttgaaagcta 240
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gaaaaagggtg aaaactcaag aatacttttt gggaaagtgg tctgctgaaa ggcatgatga 360
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tgaatcagca gtttgctttt gtagaagtag ttatgacaga aggtctttat gtgattttaa 480
taataaaaaa cgagttacaa gagttctgat gttgtatgca atggaaacat gaaattattc 540
ctaaagaaa
549

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<210> 1717

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1717

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ggagcaaaca ggattagata ccctggtagt ccacgccgta aacgatgtcg acttgagggt 120
tgtgcccttg aggcggtggct tccggagcta acgcgttaag tgcaccgcct ggggagtagc 180
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gatggattgg tgccttcggg aactgtgaga cagggtgctgc atggctgtcg tcagctcgtg 360
ttgtgaaatg ttgggttaag tcccgcaacg agcgcaacco ttatcttttg ttgccagcgg 420
tccggcggga actcaaagga gactgcagtg ataaactgga ggaagggtgg gatgacgtca 480
agtcacatg gccttacacc agggctcaca ctgctacaat ggcgcatcaa agagggggnc 540
cgtcccaat
549

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<210> 1718

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1718

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cctgaaaaca accagggcag cgggtttaaa taaattgtcc tcaacatfff ttcttaaaat 120
agaggcggttt tgtatgccaa atattcatga atatgtactt atttcaagtt tcgttttttag 180
aaatactatt taggtattgt aatagcatgg actatcattc caaaatccat atctatffff 240
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ggtttgaaata aactattcaa tcttattact ttttacatat atgtatttat ttacatataa 360
atacatattt gatttcaatt tgattcaatt gtttggtgaa ttttttggtg atagatcttt 420
ttgcagtggt ttctcgtaag ttaattcaaa tatatgcggg cataagtaat tcaatagaat 480
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tcggtaaaa

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<210> 1719

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 1719

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tgagacattg aaaatgcatg tacttccaga gattttatgc tgcaccggaa attggccata 180
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tttcatatac caaataaagc cattagtttg aattttcgat atttgtaaaa tgagatgatt 480
gaaatatttc attaggacgc taaatctaatt tgagtattgt attaattaaa aatttataat 540
taattatag

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<210> 1720

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 1720

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aggatgaatg cggagcatta gaaagtgtaa aggcagcatc agaattatat tctcctgttt 360
cgggcaaagt tactgaaaaa aactcagctg tagaaaattc accagctttg attaacacat 420
catgctatga tcaggttttg ttacaggntg gtattcaaag taaatctgcg aagcctgaaa 480
ggtgaataaa ttgatgagtg agaaaagtat gagagttttg aagannaccc attaaattgg 540
ncattaaan

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<210> 1721
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1721
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 gcctcgacgt tctttttcga aagaacgttc gaattaggtt ctgaatacat gttcaacaaa 180
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 ccaaggcttt tctggtctgt cagcgtccca tggttgagcc ttcttgaatc ttgctggttc 360
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 gtagtaacag aaaaaaaaaa aaaaaaaaaa aaaactcgag gggggcccg acccaattcc 480
 cctataggag ccgattacaa tctactgggc gcgtttacac gcggactgga aaccctgcgt 540
 acccactaa 549

<210> 1722
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1722
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 aaaaatcggt aggagcttaa accgagctgg agttgcaaga atgtcaactg gacagtacgg 120
 tgatggtgct ggcaaaggag gtggtggtgg tggatccatc cgtgaagcag gtggatcttt 180
 cggcagaatg gaagctgcta gagaagaaga attcttttat aaacagcaac aagcccaatt 240
 gaagaaactt aaggaacaag caatagatca gaaaactttc catgaggaac aattaaaact 300
 tcacaaggag gctttggaga gacatgaaaa acatttggct gagcttaaga agtaaatga 360
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 tatttactga attaataaac ttgcattaaa gcttctataa gttattagtt ttctagcatt 480
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 tttnaata 549

<210> 1723
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1723
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 cagttcgtcg gtggtggtca cttcgtcgag gatcttcgag cacactttca ggacgatatt 240
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ctgagttgcc cctttcacia agccctgata aacacggttt ttatacggcg ttacatcgaa 360
ggcgactacc ggcacgttgt cccagcaatc aagttogctg gcagaggta aatagccacc 420
gtttgcgcag tcgcagcgat agaacgagcg tcatcaacgc caccgctgac atctgccatt 480
agctggctta gagccttcgc ggtcgggaagt tncgcgtggg tggcggatct caccgagcgg 540
acagcgttg 549

<210> 1724

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1724

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tgctaagaag gnacgtttgc aacacgtgct gaagctaaag ccagggcaaa gaagacacac 480
ccacgaacgt ncaatgttgc gttccggcac aacactgcac aaantgtgac aaaagaagna 540
cagnttgcg 549

<210> 1725

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1725

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gttgccaagt tcgaccctg ttcattcca atctttctag ccagactcac aaaaaactac 120
aaccatggct gacgatgagg agaagaagaa gaagcaggcg gaaatcgacc gcaagcgtgc 180
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tcaccaacgt atctgtcctt ggaagattcc aaatatgata ttggatctcg taaacgcaag 480
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cctcaagaa 549

<210> 1726

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1726

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 ggggtgctgat gttgcagcgg cgtgacgatc ccgatttctg gcancggtaa ccggcagcgt 480
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 gttgcgctg 549

<210> 1727

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1727

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 agttcacgga gtttttcgat acgattttct tcgttttgcg taagaaaaac aaacatgtgt 180
 cgacactcca cgttattcat cacggatgta tgccaatgtc cgtctggttt ggctgcaaat 240
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 agctgtgtca ttgaatgtaa ttaccacgt gccttcgttg gggatcggca tgcatgcagt 480
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 agcgatgaa 549

<210> 1728

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1728

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 aaatagccag ggccggaaaa acagcgacat gcggcgcgat aaccatatcc gctcgagcct 180
 cattgagcat tgctccccac tctggtgtcg gcggctgcgc accgaggccg agaaatgaga 240
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 gtgctgactc aataaagggt tgctgtttca acaccagcgt gttgccgcgc accaggcggc 420
 aaacgcgggg cccggtaccc aattcgcctt agtgagtcgt attacaatta ctgccgtcgn 480
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 ttngcagct 549

<210> 1729
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1729
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 aattgccgcg cagctcagta acggacggaa gaaactgtcc gggtcgttac tgtccgtcgc 180
 ccaaccggat aacgtcagat catggctcat atccatcaac cgcgcctcct gaaagcgacc 240
 ttctaccggc acaatcacca cttttacgcc aacctgcgcc atatccgct gaatcagttc 300
 ggcagttttc agtggactgg ggttccacgc ctgcgaacgt gtggggggccc ggtaccaat 360
 tcgctatag tgagtcgtat tacaattcac tggccgtcgt tttacaacgt cgtgactggg 420
 aaaacctgg cgttaccxaa cttaatcgt tgcagcacat cccctttcg cagctggcgt 480
 aatagcgaag agcccgaccg atcgcttcc aacagttgcg cagctgaatg ggaatggcaa 540
 ttgtagcgt 549

<210> 1730
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1730
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 atgcctattt actgctcca ctctgtatgg ttgggttcga ttatcaagtt caatttgcc 180
 acacaataat tttaggacag ctgtaactaa agccctcatt gaacaagta catatggacc 240
 attcgtctt gccagtttct tctttggaat gagcttgatg gaaacacata gtgtggacga 300
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 gccgtactcc aaacaatcaa tttttctcta gtaagtgaat caaacagggt accttttgca 420
 gttgtgcagt ttgatgtgga catcattctt ggcatatatg aaatataaaa atgcccgatg 480
 gaatcgccag caaacacggc aacagcctct tgggaaaaca atcaacgcct ctaacctct 540
 ttgataagt 549

<210> 1731
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1731
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 ctcgccgttt gcgcgantcg ctggcgaaag gggagagcgt gacnacgtnt nttnttaacg 180
 ccgantnccn gcagggngca gttctnntcn aaaattncan aannctnngc atgnnaggta 240
 nanannttcc nnnccggggg gaaaanatgg gggggngctt tcgctctgtn ngnttgngat 300

cnggctcttn ccctggnggc aaaangngag cggatntttg cgttatnttg gtggcccgnc 360
 cncantccnc cttatngnga gtcatatnac aatacagngg ccgttttcna cagcgtggan 420
 agngaaaaac cgggtgnncc cctattagcn tgtngaaant ccntttttcc gntngggata 480
 ataaaagggc cccccactgn ccttttcna attgcccccc natggggaan gggaatttga 540
 gggttattt 549

<210> 1732

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1732

caacgcttgt ggaantgcaa tccaccaa attgatgcca acttgctcca gttggagatc 60
 cgaacatgaa ggttgaatgg ttcctaaatg gcaagccttt acctcacaaa aatcgtttca 120
 cgccgatata tgacttttga tatgttgcta tgaatttttg ctgggtctac cccgaggata 180
 gtggagagta tttatgcaga gcaacaaatc tttatggtat ggatgaaact agagcgatta 240
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 gcattgaaag aattagggag atggaagcag cttggcaaat tgtgccggac gaacctgatg 360
 aagaatctaa acctaattgtg cacctgtgtt tgtagcaaaa ccagacctg ccaacggaag 420
 aaggcgaatg gctagattct gctgtagagt acaggtcatc cacgtcctan agttatgtgg 480
 gtagggtaat ggtacactga gtcaacggtc aagattaaat tacatatgat ggnatgttca 540
 catggnntn 549

<210> 1733

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1733

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 ggataatcaa caaagactgt atttctatta ttgggaatgg tgttgctcatt cacttgccctg 180
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 ctcttctaag gcaaccgta atggattgag agtgggtgat ttattgggag attatgattt 420
 gttcagccga aaatttaggc agtggctgct ttgtccaaaa atgtttcaag tcttgaattg 480
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 atcgatttn 549

<210> 1734

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1734
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 aatcccttaa gaaaacatta gatgacaaag atagaatggc aaaagctgct gttatgaatg 120
 acattgttga gaaggtaaaa gaattgtgcc tttcaagtga atcagatgta tttgttaaac 180
 aactgcaagc agattcaaac actaaagcct tagatgctgc tttaaaacaa ataaaattat 240
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 gtttagcttc tgcttccaaa caagcaattc aaaaaggatt aaaagcaa ataatgggta 360
 atcatataac aaaaatcata aatggtaaag gtgggtgtaa acctgaatca gcacaagcat 420
 tggttagcaat atcgcaaaaa ttgatgagtg ttaatagctg caaaagaatt tgcagatttg 480
 aaatactgna aaatgntttt acttctgcat tgttgaaaca ttnactatat cttagcattt 540
 atccgtatt 549

<210> 1735
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1735
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 acacagtagt aacaacaata tatccagtgc tggcaacatg aatccgcaac atgtgaatag 120
 tcattcttct caccacagtc cattatcttc atccatgagc catcatcata caatgcacac 180
 acctcgctcg atcaattcgg ggtatcagca tgtgaaaaat gaacctagtg aatacgatta 240
 catgaataat tgtcttctcg gaagttattt cacaggaacc agttttggta ctcccctgag 300
 tcattcacag agcagtgtcg tagattccct gagtgggtac catcatcaac acaatgttat 360
 ccaagccgct aaattgatgg caacttcttg aaattttggg ttgaaataag taaaaatact 420
 aaagactaat aaaaaatgta aatgatatag aagtcaacat atttgactat caaaatataa 480
 tgcaaaaaaa tgttgtgtga caacattgga tggcaagtag caaggcaata tcaagcataa 540
 ttacataat 549

<210> 1736
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1736
 atngaagat ggcagttact gatcctgcat tatgtagaag agttgcttta agacatacct 60
 gtttttttagc agctttgtca ttatcagctc cttttctaga tgttactaat tattggtttg 120
 ctgctgaaac gttaccattg aacggatact ttatgtactt agcttggaat ttttataaag 180
 aatcgacag taaaagttct agaaaactat ttagattttc actaattcat ttacctgcat 240
 tgatgttatt atttttatta aataaaaagg aatggttttt tacgaaagac tcaacattgg 300
 aaacaccttt ggatatcgat gaacacaata aaactcaaac aataagcaat aaacctgcaa 360
 aacaaacagt tgttgtacct tcagctatct tagataaaat gtaaataata tataacaaaa 420
 aatgttttag taaaaaatag aacaattaa gatattatga gaacaaaaaa aaaaaaaaaa 480
 aacctcnggg ggggcccggg cccaatcgcc tataggagcg atacattcct ggncngnttt 540
 acaccgagg 549

<210> 1737
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1737
 aaattttctt ttaataagaa aaatttatta ttaagtttat taattttaga atataaagct 60
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 tgtaattttt atattgtatt tacagtatgt gaaggggttt taggcctttc tatttttagtt 180
 gcaataattc cgtactcatg gtaatgatta ttttaaaaga ttttaatataa tacaatgtta 240
 aaatttttaa taataatatt ttttataatc cctattattt tattaaaaaa ttgttattga 300
 ttggttcaaa caatattatt tataatatta tttatttata taattttagg aataaaaaga 360
 attataattg ttaatattag attaaatttt gggtatgata ttatatctta tagattgaat 420
 ttattaagga tttgaattat tattttaata ttaatagcat caattttaat ttataaaaaat 480
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 tttagtcatt 549

<210> 1738
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1738
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 ccagcaattc tttccgctcg cacgtattca acaatatctg tctttcctcc taccagctc 180
 agaatacctt tcatgaaaag gtttcgttct ggcataagtt taatattttc gacaacatca 240
 cggctcatca gcctgaaatc accaaccattc tcttcaattt taggattgct tattttattg 300
 tggagcttat agaaccactc agccgttttt cgcttcaggc gtccatcagt tgagcgggtca 360
 gatcttttag caagaaccat atcagcacct gcttgccatt tttcaataag atgaggaata 420
 acctcaatcg ggtcttgagc gtcaacatca attgggatta tcgcatcccg gtacccaatt 480
 cgcccttagg agtcgtatta caattcactg ccgcgtttac aacgcgtgac tggaaaaccc 540
 tgcgtacc 549

<210> 1739
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1739
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 aactgcaatc atgtccgacg aggaagaggt ctacagtga gaagaggagg aggaggagga 120
 ggctcgaggag caaaaacaca cgaccaaaagt agaaggcgat gcagctgctg gagaccaga 180
 attcatcaag cgtcaagacc aaaagagatc agatctcgat gatcaactca aggaatacat 240
 cttggaatgg cgcaaacagc gtgccaagga agaagaagat cttaaaccgc ttaaggaaaa 300

gcaagctaag cgcaaggtat cccgcgctga agaagaaaag cgtatggccc aaaggaaaaa 360
 ggaagaagaa gaacgcagaa taagagaaat tgaagaaaag aaacaaagag acattgaaga 420
 aaagcgtcaa cgtctcgaag aagccgaaaa gaacgccagg ctatgcttca agccccaagg 480
 atgccacaag aagggcccac ttccctccca aaagacagac ttcactgttt ctgccaattg 540
 aagaacaag 549

<210> 1740
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1740
 aaggaaaagc tgtttttgaa ggtgaagcaa cttcagaaga ggctcttaag aaattcggtc 60
 aatcacaatc gttgcccctt atggtagaat tcaaccacga gactgcacaa aagatctttg 120
 gtggagatat taagagccat ttattattgt tctgtcaaaa ggaagggtggg cattttgaca 180
 gctatgttga gggagcgcgg gaggttgcaa aagaattccg cgatcaagta ctgtttgta 240
 caatcaacgc tgatgaagaa gatcaccaaa gaattttgga attctttggc atgaagaaa 300
 aggaggtgcc tgctatgaga ttaatcaagt tggaagagga tatggcaaaa tacaaccag 360
 ctacaccaga cttttcagca gaaaatatta aagaattcgt aggaagcttt attgaaggca 420
 aattgaagca acattttatta tctcaagatc ttccagaaga ttgggataag aatccagtta 480
 ggtttagtca gctccatttg atgaagtaca ttcaattcag aaaagggtggg ttgnggaatc 540
 tatgctcca 549

<210> 1741
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1741
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 ggttattttt ctgggtcaa tcaoggtact gcaggggata tacgtcttag tcagttccga 120
 tgcaagcgcc cgactggctc ccggcattat tcttatttgc ctcggaatga tctgttacag 180
 catattctca aaagtctggc tactggcact ggtatggaga cgtacctgtt cgtagccaa 240
 cagaataccg atgattcccg tcttcacctg cctgttttgc cttttcctgg catcgtttct 300
 tgcggaatg gcgcagaccg acatgggata ttttattcct tcgcgagttc tggctgggtt 360
 gggagcggta tgctttacgt tgttctcaat cgtttcaata ttagaagcgg gttctgctaa 420
 aaaataattg caacgtaccg gataaaacca gcgttgacca tttgcgtaac gctgggtttt 480
 cttaggcatc atgaaataac gcacattaat gcatagtggg aagtataaaa aacagcaagt 540
 actgttttt 549

<210> 1742
 <211> 233
 <212> DNA
 <213> Ctenocephalides felis

<400> 1742

tcacggtttt agaaatggaa gtaggatcaa tatcgatatg cagaacagtg gcatttgggc 60
 agtactttgc cagattgttc gtcgttcggt catcaaatacg taccocgacg gcgaaaatca 120
 catccgcggt atgcatcgtc atattggctt cgtagggtacc gtgcattcat caccatttgc 180
 tgcacccgca gagcgctaag gcgcagttca ttcactctgt taacatactc aag 233

<210> 1743

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1743

aagtcgctga acataccaac ctcgaaacgc actttatcga ttccagcggg ttaatctcct 60
 gggacctgtt caagcaggat gccgattatc cgtttgtgga ctggaatttc tccggcacca 120
 cggaagaaga gttcgccaca ctgatggcta tcagaaaaag gccatctctc agcgccctctg 180
 aacaagggtca ccaatgctga gatagctgaa gagatggcgg ccggttttgc ccgttgctgc 240
 tgtgcgaatt tatccgcagt gtgaacaccg ttggcaaatc ggcattcgtg gaggccgtcg 300
 gtcgggagcag cgatgatgcg gaagggtacc tggatttttt caaaggcaag ataaccgaat 360
 ccgttgaatt acatcacacc ccgcgagagt cgaatcaacc aattttgttt tttttacatt 420
 ttatacaaaa tttataacta agtatataag tgttgtatgt gggttgaata ttaaatagcag 480
 tatacctttt tattaggaaa ctacaaacat tcttggtata gataaaatat aatttaaata 540
 tntgttgaa 549

<210> 1744

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1744

aacacgctgg ctgacaaccg cacgggcagt cagagcaccg ttgctgttga agacttcaat 60
 ccagtcgtta tcggcgatac ccagatcttt ggcacggttc tcaactcaacc agaccaccgg 120
 accaccgca cctaaagtca gcatcagcag gttgtcgtcg taggtggagt ggatacccca 180
 cttctggtgc ggcgtcagga agttgagcgc tttttcctgg ttgccgttgg atttctggcc 240
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 gaaatcacgc atccactggt gatcctgata cagttgctga cgaccagaga gcgtacgcca 360
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 ccagaccagg tcgggctgga gataattttg cgcggtgtg cctgaatatc gcggaacgga 480
 tcttctcgtc ttnttattca gcgccagatg cgtatggcac gaccgnaat tcgttnaggc 540
 agccaagct 549

<210> 1745

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1745

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acccgcgtat gaagagatcg cgcataaagc cgagcttttt cgccaacaaa cgggaattgc 120
accgtttatt gtggtttttac ccgacattaa taatgaagcc agtctcagac aaaatggtaa 180
agcgatgctg gcgcatgcgt catcttcatt gagtgatgta aaaggaagtg ttctgttact 240
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ggacgataaa catctcggcc ttctgataga aaatcacacg ctggcttatt taaatgcaga 360
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atcgacgccg cactaacgta ttatccgcgt ccaggcgcg gctgcacgac ttgttcagcg 480
gcatgggtgcc gtatttatcc agcgccagcg agaaacctgc tccgtaccg ngtgccggaa 540
gccagatgc
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549

<210> 1746

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1746

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tcttatcaca acttatcggc aggcgcttcc ccgcctttcg ggtcaaggcc cgcatactc 120
ctcaagaata gtttttatcg cttccccgc cattgcagct gttgcacaga gttgttctat 180
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cacacattgt gcgcgttgtg gatgccgcct ggcgatgtag tcataaatgg tcgtttctgc 300
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tacctcaacc aggcactcgc ctaccggacg atcatcacga agaatatcgg caagcggaat 480
agcttcgcta ccgcgtattc attgagtcac ggttaataac cagcttactg caaaaccggt 540
agaggtcgg
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549

<210> 1747

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1747

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aacaaaacga agttatacga tgcgaagagg tgcatacgat ggogaaggta aaactgtttt 180
gcgtttatta aatcaagatg ccgaaatggg cctgatgatt aattcatata gtcaagttgg 240
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cctactgtgt tgcatgcact acattaactt tcttatgcaa aagcccagcg tgctgggcat 540
attccctt
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549

<210> 1748
 <211> 137
 <212> DNA
 <213> Ctenocephalides felis

<400> 1748
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 gacgctttcg tnccttac 137

<210> 1749
 <211> 193
 <212> DNA
 <213> Ctenocephalides felis

<400> 1749
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 tgatcaatac ataataTTat aaaattgttg taaatcatta tgttacataa tatatataaa 120
 gtcttgtttt aacttattta taataattat aataaaaaaca taaacatcaa aaaaaaaaaa 180
 aaaaaaaaaa aaa 193

<210> 1750
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1750
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 tccaactnca gataattatc taattatttc ttactagggg gtttgaattc aaatttacgt 120
 gatttaagtg ctgtccattt gtgtcttttc agataaaagg ccaatgcaaa aagcattgaa 180
 aagattccaa tagccttaat gggtcatttc ttacgatcat catgttcagg ctcagatgcc 240
 catttcaaga atgtagaaac atctttggcg agttgactgg cagtggctgg cgttccatct 300
 gaatattcca taacctcatt atacaatgct tgagccatag aaatggctcc ccctgggaaa 360
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 cangtggaag agcccattat 500

<210> 1751
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1751
 acatataagc gaattttttt atatatatct tcaaaaagaa aatatccata tttttgaaac 60

<210> 1755
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1755
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 tgctaataat tattttgtaa aaaatcaatt tgaattcaaa aagaaaatta tcacaattga 180
 tgctgtgcta gactttttga acttttatatc aaattcactg gaagatcata aacactgtgg 240
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 gaaactggaa tattatggat ttaggggctg agcccttaaa ctgatgcaat catacctatg 360
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<210> 1756
 <211> 486
 <212> DNA
 <213> Ctenocephalides felis

<400> 1756
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 aaatcttgcg caaataacta aacgtgcatt aaatatcgcg ttgataaag aattctattg 180
 gagcgattcc acaatcactc tttcgtggat aagatctcca tcttataaat ggaaaacctt 240
 cgttgccaat agagtttctg atattcaaac aaaaaccgac gcaaataact ggttacatgt 300
 ccgatcggaa gacaatccag cggacctcat atcacgctgg tgctatacac atgatttatt 360
 gaattcatcc ttgtgggtggg caggcccatc ttggctacaa aatccaactg aaacacagcg 420
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 gacttg 486

<210> 1757
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1757
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 tgntagaatg attggagaat ggtcggatga taaatcaaaa gatggtttta tttcaatggt 240
 cttatcatca atatcctttg taatgaagaa attgagcaga tccgggtattt tattagtatc 300
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atttaataat tccttgccctc tagatgtaat taatcgagaa ccccatcttg tatgtttgca 420
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 aatctgtaa tttatgtcgt 500

<210> 1758

<211> 270

<212> DNA

<213> Ctenocephalides felis

<400> 1758

acatgaactt aatcctgatt ttaaaccacc aaaaagacca tttaaaagga tggattatgg 60
 tgctgccata aaatacttga gagaaaataa tatcactaaa gatgatggaa cattttatga 120
 atttggagag gacataccag aagctccaga ggcgagaatg acggatgcaa tcaatgaacc 180
 tataatgctt tgtcgttttc cagcaggaat taaatcattc tatatgtcca aatgccctga 240
 gaacaaagaa cttactgaaa gtgttgatgt 270

<210> 1759

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1759

acatttttac attttttaaat ataatacaac cttatataag tatcacacca tcttgatattt 60
 atgaaaatag tctcgcaaac tcttcgaagt tgatgcgtcc atccttggtcc gtatcggccca 120
 acgtcatcaa ctcggtgacc tgctgctccg tgacattttc gccgatcatc tccatggcgg 180
 ttcgcaattc gtctcgggaa atgtatccat taccatctcg gtcgaacacc ttgaaggcag 240
 atcgtagatc tttattgaca tcatcgttgg agtctgaatc tcccccttgt ctttggggttc 300
 cgccttgcat tgcctgaact gcttgaatct ttgcgatcca ttgtaaaaac tcggtctcgt 360
 ctattaatcc gctaccagac tgactagcgt ctttcatcag atcttgaata agttcatccc 420
 tcacgtggat tcctagattt ttaacataa attgcaaccc tgaagccgta catgtccatc 480
 ctggtgcat ccagcaaccc 500

<210> 1760

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1760

accaccgtct ggaccgctag gatccttgat ttctagggta agttcaaata cttcttcttc 60
 tacatctacc gttcgtattt taattttact cgattcttta acgactgtgg ttccgcgata 120
 ccaaacgaca tcaggcttgg gcttagcttt acatttacat ttcattgtta ttaacgagcc 180
 tgtttcatta ggaataattc ttgggttttc gatgaacgtt ggcgcgatc ctgcagcatc 240
 atcaccgctg tcgaagttca agctgatagt cgcattgctt tctccaagtt cattctttgc 300
 agtcacacga tatttgccag catcctcaac agtgacattt ttaatctcga gtgaagcaaa 360
 gtatgaatga ccattcttgt caaccatcaa cttgtgtctt ggtgagtcct taacagggtt 420

ggattattgtga aaccaagcga ctgtaggttt aggatcagct tgaattcggc attcaaagag 480
 caaacgtttg catcatctct 500

<210> 1761

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1761

acctaacgat caattcatta cagattactt gaatgacggt aatttcatag actagcccat 60
 tccaaaaatt aagtattctg aagtgtctta cgagattagt aacactaaat tggtaaaaac 120
 acttggtaat gatgcatca catttggact aataaaacac cttcctgata aaggtaagag 180
 atttttaacg atattattga atgccataat acggctgaag ctttttctt catcgtggaa 240
 attggcaaaa ataattctta ttctcaagcc tggaaaaaat cctactgatg cagtttccta 300
 ccggccatt agtcttctat cttgcctctc acattttttt gaaaaagtta ttcacaaaag 360
 aatcattaat attttagaag ataataattt tatgccaaaa catcaatttg ggttcantta 420
 gacaacactg agcaaaagaa caaatacaca gagtagtgga ttcatttata aagcctttca 480
 cttaaaaaaa atggtcagcc 500

<210> 1762

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1762

acgggttgat cttagcagcc tcagcatatc cttttttcca catcctgttt ttagcttcaa 60
 aataagatat gttatgtagt gccatcattt cttttatttc tttatttgct ttgaagaatt 120
 tacattcttt gtcgtttgct tgatggtttc catggcatac tgcacatata aagtctgaca 180
 cgatatggca attttcatga gagtggtctt ctgaacaata tcggcatctt atcttgcttt 240
 tgcattagtt ttttatatgt ccataacgcc agcattttgtg gcattgcatt acagattgaa 300
 tgtaaggacc tacagcacac ctaaccgaat acattgaaac gtattctggc agatagttaac 360
 ccctgaacac tatttttacc atttgogatt tcataattgt ttattctaag tttttttaat 420
 gcatttgacc tctaataatt tgatatccga tctaataaca tccatgattt cttgctcgtc 480
 atgtcggggt caacgttaaa 500

<210> 1763

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1763

acctgggcaa aggtggagaa gttgccaaat taaccaaaga agcaatgaaa ggcagcatgt 60
 ccttccaaga agctctcaca aaacgattag atataatcag accttcacaa cagaattatt 120
 cagacttcat caaagatcat ccataaacac tcacacctgg aataaaaaac ttaattgcat 180
 ccttacatcg gaaaagaata ccagtatatt tggtagtgagg aggcttccga tcaactcatag 240

aacctgtggc caaagaatta ggaattccat atgaaaatat atttgccaat agaatcatat 300
 tttattataa cggagattac gctggatttg atgcaactca accgacatct cggctctggcg 360
 gcaaggggca agttctagcg ttgctgcggc agcaaaaagg ttacagacac attgcaatga 420
 ttggtgacgg tgctacagat ttagaagcac aggctgatac tttcataggt tttggcgga 480
 atattgtcga gaagaagtca 500

<210> 1764

<211> 315

<212> DNA

<213> Ctenocephalides felis

<400> 1764

ctcgtgttat ttttttaagt tgtatttttt tgttttagttt taattttata aaatgtgatc 60
 ccccgactgt aactttgccc cagggcgcaat tggttggaaa agctttgacg aacgaaaatg 120
 gaaaagagta ttttagctac acaggtgtgc cttatgctaa acctccagtt ggagaactta 180
 gatttaagcc tccacagaaa gctgagccat ggaatgggtgt tttcaacgcc acattatacg 240
 gaaatgtgtg taaatcttta aatttcttct tgaagaaaat tgaaggagac gaagactgct 300
 tggtagtaaa cgtgt 315

<210> 1765

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1765

acccttttaa gtgaaagatt atgtatttgg gagaaggctg cagatttaat ggccggtggt 60
 tatagacaag aattaaatgc tgcaaccatg ttaggacaat caaaaacagt cattcaagct 120
 gaaattgatt ctgcagctga attgattgat ttcattagaa tgaatgcctt cttcctgaag 180
 gaattaacta aataccaacc aattagcgaa gatttgagtg ttacaaggaa ttctatgcgt 240
 ttccgaggta ttgatggatt tattgctgct gttagtcctt tcaactttac cgctattgggt 300
 ggtaatttgg cctatacacc agctttaatg ggcaatgggt tattatggaa accatcagac 360
 acagctttac tgtcaaattg gatcatattc aagatcatgc gtgaggctgg tcttccacca 420
 ggtgttgtca actttatccc ttgtgatgggt cctgtatttg gtgacactgc actgctctc 480
 tcatttagct ggcattaact 500

<210> 1766

<211> 456

<212> DNA

<213> Ctenocephalides felis

<400> 1766

accacgtatc taatataatt taaaacttat ttgagttatg taaatcaata atctcaagta 60
 taactggcaa attaagattt gtagaaaaat aaccaagta atgcgacaaa cctttacatc 120
 acaatgcttc taggttgga tttgtttcaa tgggtcaactt tttctcctga ctcatattcat 180
 atgcaaccgc ccttccagct tgatataatt gtgttagtcc aacaaacata ttaacagcaa 240

caaacagtgg tttgcttact tcgttattaa ccagcgtggt ttgaattgat gccatcgacg 120
 ggatcagggt cagtttttta agctgggcaa gcgggaaggg accatgatca accgattcgt 180
 tgaagatgac gctctgaccg cttttaatcc acggattttc tttcccgga atgggtttca 240
 ccaacagttg caactggctg ctgaatacgc cgcgatgata gttttgataa ctcaactcca 300
 gggttgattc aggagctgtc agtttgagtt gcgcgttcgc ctgcgcgacc atgtcttoga 360
 gatgggtttc aatcttcttg cctgtatacc atgcgccgct gtccagacta cgcctagcgc 420
 aacaatgacg cctaccgcta ccagcgattt attcataatg attatcataa aatgaaatca 480
 ggcggaactgc cgctgaaggt gtataagcct ttaataagct tacaagagat gtaatttttc 540
 agtagctct 549

<210> 1770

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1770

aaggatggag tcaactgtagc gaagggtatt gatctcaagg acaaatttca gaatattggg 60
 gccaaattag tccaagatgt agctaataac accaatgaag aagctgggtga tgggtactact 120
 actgctactg tgcttgccag agctattgca aaggaaggct ttgaaaaaat atctaaagga 180
 gcaaatccca ttgaaatcag acgagggtgt atgctggctg ttgatgcagt caaagaatct 240
 ttgaaaggaa tgtcgaagcc tggtactacc ccggaggaaa ttgcacaagt tgctaccatt 300
 tctgccaatg gagacaaagc tattggaaaa ttgatctcag atgcaatgaa gcgtgttgga 360
 aaggaagggt taataacggt taaagatgga aaaactttac atgatgaact tgaggtcatt 420
 gagggcatga agtttgatag aggatcattt caccttactt tatgaattcc agcaaagggtg 480
 ctaaagtaga attccaagat ctttattttg tcagtgcaca aaaataactca gtcaagcata 540
 ttctgcttg 549

<210> 1771

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1771

gctcaacgag taataatggt cagagcgaaa tattgttttt aaaaaattac gtcatacaaa 60
 tatogaatta cttttgaatc taaaaatata cctggtgaac atttttgata ttaagacgtt 120
 ttacatcgaa atttttaagt ttgcattttg gcgaaaatat ttgttacgtg ttcgttacgg 180
 aagtttgctt aaaaactctg gtgaattttg aactcaaaat agtgtctgtt gggtttttta 240
 attgttgtgt tgccgtgcgg gtcgcagaaa taaattgggtg atatggcaca attaatatca 300
 gttcgattaa atcgaggaga tgcttgctcg tggggattca gactccaggg tggcaaagat 360
 ttccgcactc ctttggttat tcagaagggtg aacagcggaa gcccggccga gcgagctggc 420
 tgcaagcagg cgacgctgca tcaagggtgaa taacacagac gtctataatc tgagacacaa 480
 ggacgcgcaa gacgcctcgg cgcccgga tcttgagggtg cagtcaaaga ggtggatcac 540
 atggcaccc 549

<210> 1772

<211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1772
 taagaaagtt gctgaagaat tttaaagaagt tttagacacc ttattgngga atgatgaata 60
 tgggtgtttgg atggactacg attcagaaaa tagaatatcg agaccttatt tctacccttc 120
 gaatcttgct cctttgtgga ctcaaagtta taaggacgtt gagtgtggga gtggtaaaag 180
 tttgggagta gacaagaatg tgcaggatag gattgagagg gttttgcggg atttaaatag 240
 tccagatgta gcaataaaaa gctacccagg tgggtgtacca accactttat tgaatacagg 300
 agagcaatgg gacttcccaa atgcctgggc acctcttcag catatggtga tcctgggatt 360
 ggacagcaca gataatcagg aagctaagga tttgtcattt gatctttgcc agaaatgggt 420
 ccgatcaaat cataaagctt acttggaac gaatcatatg tatgaaaagt taatgcacac 480
 atgctggggc accangaaat ggcggagaat tgaggccact tggtttggtg gcgaatggtn 540
 ctattagac 549

<210> 1773
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1773
 gccgtattcg cagacttata aattagtcgt cgtgggcgga ggaggcgtcg gaaaatctgc 60
 aataactatt cagtttatac aaagttatct tgtgacagat tatgatccca ccattgaaga 120
 ttcatacaca aagcaatgtg tcatagacga catcccagct aaattggaca tcctgggatac 180
 tgccggtcaa gaagaattca gtgcaatgag agagcaatac atgagaagtg gtgaaggatt 240
 tttgctcgtg tacgcagtga cggatagggc tagtttcgac gagatgtaca aatttcacag 300
 acaaactcta cgtgtcaaag acagagacga atttccaatg ctgatgggtcg gcaacaaagc 360
 agatctcgag acgtctcgcg tgggtgtctgt tgaagaggcg caaaatttgt caagacaatt 420
 aaaaatacct tacatcgaat gtagcgctaa attgagaatg aatgttgacc aatccttcct 480
 gactagttag aattgcagaa gatttcaatt atcagaaagg cagatccaat taaatcaatt 540
 ataggataa 549

<210> 1774
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1774
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 cctgatgggc ggtgcgaaaa acctgctgat cggtaacgtc atcaagggtc agttccttaa 120
 tattcgtgac tggccgtttg gtgcagctac cagcattacg ctgactatcg taatgggcct 180
 gatgttgctg gttactggcg cgcttctcgt ttgctgaata agaagggtgga actcgaatga 240
 tcgggtcgact gcttcgcggc gggtttatga ccgctatcta cgcgtacctg tatatccacc 300
 atcagttcaa gacgacgcag cacctccggc cgggcatcat cctccgtcat ggacagaga 360
 aaatcattca gcgtccccgg ttgtgaatct tcatacacgg tgatgggtccc ggcgtgcgat 420

ggtggaaaac cgtcaacctg caggatgaca ctgtctgacc gtactccaca tcatgtgtga 480
acgcccggt taccggatc ttgaccacg tgttcaccac caccgtggtg ctgtacgtct 540
ggtttactg 549

<210> 1775

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1775

gaaacgagtc gcatagtgc cttctgaatg tgacataatc ccaaagtcta aataacaaaa 60
atactattta gatggagagt gctatccctg acgtatacgt gaattgatac gtgcaccttt 120
tactatcaag gtgatacact cgtgcatcaa gtgataaaga gtgcctgcaa tttattttta 180
ttttagtttg tccgtgaatt gtgtttttcg ttgtgtaacc caagcgccaa agtaacgccg 240
aaacagacat ggaggaaata ttacaagaaa ttaggactat aaaattcaca cgggaggaag 300
tggaatcggt gatttactgg cgttgtccgc gtaagtctgg catcgattc ggcggtgtccc 360
tcgccctgct gctggcggtta tcatgttctt ccctaatacag cgtgttagcg tacgcttccc 420
tcacagccgt ctgcggtctgc atggccttcg tatctatcgc aacgtattgc aagctgtcag 480
aagacgtccg atggcatcct ttaaggagct gtggaaacag atgtcagtggt gtctaagaaa 540
acccacagn 549

<210> 1776

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1776

gctgatgggt gcggatccgc tgagagcgga tatagtgcag aacgcagtga tgaaagcgat 60
tgcgagacta aaaatttagc taatgattgt actgataatt tagataatga tgttgaacat 120
gtaggtagtt cgaatgatat tgtagaagaa gatgagcacg tactgagtca caataatgat 180
gtagtagaag acgaaattgt gaatgtaata aattcgattg aaatagaaga actctctggt 240
aatgacatta atgaaataga cggcggtgga gtagaagacg agactgatat tcatattaac 300
aaagaaaaaca gttgtaaatt tgattttaac acaacgcaaa ttggagatgg ctcaataaat 360
gtgacagtcg ttgcaatcca gataaagaag gagcagatag cacacttgaa cttgaagcgc 420
aatcgtgttc aagttctgga tcttttaata aaatctctaa tattgtaatg atgaaaaatc 480
tcagaattta gacaaattga cacatgcaaa gacgataagt tgtgcgtgtc agacctctca 540
tcgcgagtt 549

<210> 1777

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1777

aacgaagaaa aacaagatta aaattcaaca cggatcagct gtgtattgta ttatatattt 60

ggataacaaa gtatttgtat cgtttgcaaa tggcgatatt agtgtttaca caagagatca 120
 aacgggttg aatacaaacg acccaacgac ggtgtgcgtt ggttcaaagtg tggccgccc 180
 tactaagttg cttcccgtcg ctagtcgatt gtggtgttcg gcgcataatc atatcaaaat 240
 tatcaataca gaatcattac aagttgaaca aacgtttcaa gtcaacaccg atatcaataa 300
 gccataaca aatatggtta ctggaaattc gggggttttg atatcgttgc aaaattccgc 360
 agttttaaaa tggtatcatg caaatactta cgaatgtgtc tggaagtaaa tattgctccg 420
 agtgttacaa agatgttagc ggcttgcgat gatattattc gacaacataa agcagcgtgt 480
 ttaagagtgc agcctgtagc ttgcaaagat tatatggata ggaacagtgc tggagtatat 540
 tgccctccat 549

<210> 1778

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1778

atacgtgata aggatgacta cccatatata acattttgcc atgttattat atattttttc 60
 atgctagctt catagaaatt tttcaaaatt aacattaaaa cattgttcat acatttcggt 120
 taataatttt tatgttttaa actcattggt caccttaata aatgtacata acttattatt 180
 tctttgcaaa tccagaatta ggacattttt ttcaagtatg tattatggct ctcaaaattt 240
 agtttattct tatatcgggt tttattttcc tggacgggtt tcaaccgcaa tcacagatat 300
 gatggacgtg gagccctagc ggatctccaa gcccatgaag ctatatcaca ttgggactac 360
 aatgaaggac ttagtgatga agaaagaaga gcagaacagc ttgcgatga agagaggtca 420
 gagcgttgta tgagcggcgg aagaagaaga aatatataaa gaagaggtaa tgaagagggc 480
 acaacaacag atcatgtgaa agtnatggca agtgcattca attatcagat gttggtggtg 540
 ggatgatga 549

<210> 1779

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1779

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 tgtattaaaa ttaattattca aagcataaac cgatagccaa taccggtttc agtaatgaaa 180
 tggcgtgggc ggccgggatcc tgttccagtt tttgtcgcag atgtcccata taaatacgca 240
 aatagtgact gtgttcgacc gcgtttggcc cccacacctg gttaaggagc tggcgtggg 300
 tgagtacttt tccggcattg ttgagcagca ccgccagcag gcggaactca attggtgtga 360
 gatgcacctc ttcctcaccg cggtgaatca cgcgggcggc taaatcgacg gtaacatcgg 420
 aaaattttac cagcggatcg ggcgcggtgg tggagagtgg cggcgtaatg cgactgctgt 480
 acttcggcgt gcacaacatt gccatgctgg cgtattatcg cgtatgggat gctgcgtgat 540
 ggtgaggtg 549

<210> 1780

<211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1780
 ggtacacaat gtacggtccc gatttatcca ttgattctgc aatatattca aatcttgaaa 60
 gtgacgaact aaaagaaatt attcaggatg atgacaaatt tgaagaaata ttcaagggaat 120
 tggcccaggt taaaaactgg gaaaatcaaa aggaagcaat gatagaaaga aataangctc 180
 ttgccgaagc aaatctttta cgcaatcctg acttagctga aataaaagaa aaattacaag 240
 aactttctga agaaggcaaa caattatgta ccagtatcca agaaatgctt gctgaaataa 300
 aagaaaaatc tggaagtatc agtttggata cagcttttagc tctgttacia acagcagctg 360
 caacaagcga agaagaatct gaaaatatag cagatcaatt catttcacgt gatattgata 420
 tagatgcatt tttagaacag ttgcatcat caagaaaagt tatgcatttg agaaaagtca 480
 aagctgataa aatgaaagac ttcttnccaa agaaatagta gtatcaaata atcttatgtg 540
 cctagtgtat 549

<210> 1781
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1781
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 aaaatcgtct caattgaatt taatcggacc gtactaaaaa aaaagaaact tattactgtt 120
 attgttgcga taatttcgaa ccgaagaaaa ttaaattaaa tccaaaccta ttgtgtaatg 180
 gcgtttttga gatcgtctat tcagtgtaat aatttactaa gaaagttcgg cataatacca 240
 aacagtttgc aatcgttgtc gacaccgtgt gcgtctcata tacatggaat aaatacagat 300
 tcttcaaaaa gtcaacatgt tgcaagccca gctcaagccc atgtacagaa agaccctttg 360
 gacatatcat tcaacgatca cgttgacgcc ttcaaaagta aaaagacaag tgagctcgtt 420
 cgggcttcat cgtctatgca ctatgcacct cagaatatct tgtggaaaat aatatgaagc 480
 taatgaaaat atccaaggcg atcttaggcg agaagctgtc acagccta at gaagcttcgt 540
 ctatggcnt 549

<210> 1782
 <211> 326
 <212> DNA
 <213> Ctenocephalides felis

<400> 1782
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 acttctctgc gcagaccatc aagccctttt tccagcagca gcgggaaatt caccgccagg 120
 tgcgcacgcg cggagggtcat attgccttcc gctttaatga ttccggtcgc cagcagacct 180
 ttttgctcat cggtaaacad gccgtagcag cgatcctgtc cgggtctgacc gcgccaccac 240
 gggcacactt catgcagaac gcgtttgttc tcttcgctca ccgcaaagcc agcaccggga 300
 cgatctgccat gatcatcaat ctcttt 326

<210> 1783
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1783
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 acaataacttg atgatttgga aatgtatgag cagcaaaatc catttaaatt atctgatttc 120
 gttgtaattt caaatttttt gaatatgttt ttatataaag cgatactggg aaatctattt 180
 gatttgaaaa acctatcagg gtgtccatta tttgtgtcaa ctcatacttt gttattagct 240
 ttgtatagac gagattgtcg aagaccattt acaccaaact cacattggct tgctaaagat 300
 atcaggccat ctacttttat gaatgatctt gacaaaggaa aaaaaactac tcagggtgctt 360
 ttacaaaaaa tgccgcacat aataccacat gaagaaaggg tgcaattatt tagaaagtgt 420
 gtgtcaaagt aaaaggctgt gttaggttta actgaatcag catgtgtatc acccaaagca 480
 ctttgatact gtcatagaga cagaattgtg aagatggata tcacagctgc tgcgtgcaac 540
 catgcttaa 549

<210> 1784
 <211> 327
 <212> DNA
 <213> Ctenocephalides felis

<400> 1784
 agttgattga aaaggtctga tgtgcatgcc attgcgccacc tgaccggngg cggcttcttg 60
 gaaaacattc cgcgcgtatt gccagataat actcaggcag tgattgatga atcttctctg 120
 caggggcccgg aagtgttcaa ctggctgcaa acggcaggta acgttgagca ccatgaaatg 180
 tatcgacact tcaactgagg cgttnggatg attnttgccc tgccctgctcc ggaagtggac 240
 aaagccctcg ccctgctcaa tgccaacggt gaaaacgcgt ggaaaatcgg tatcatcaaa 300
 gcctctgatt ccnaacaacg cgtgggtt 327

<210> 1785
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1785
 aatgtttccac cagcagggga aataatgttg ttctggctat cggtcaccac cagccccacg 60
 ccaggacgtg acgtcttaat cgcctgggga tagctggggg ctgtgggttg cgtcagactc 120
 aggttgacat taactaatcc cgcgtttccc gtgttacacc tgactggaat tgcaagttct 180
 gccgtctggc cccaagaggt ttatgcccta caacacggaa attggcagcg aagacatcac 240
 ctaaatcaac ttcaattgtc tctccggcat tgacggaaca tgagccaagt gaattgatcg 300
 taccagacag gtaatacact aaaaccggtg tacctgtagt cgtgcaggaa tcacctgcgg 360
 gtatgttgta gcattcatat aatcgcgccg gcgccatagg aggaatgacg accgagccaa 420
 cgaacggctg caatatttta gggaaaagct accgctatta ccgctgcccc ctgccactaa 480
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ccggtccca

549

<210> 1786

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1786

cgtttacgtg gtggctctaa tcaggctttt gttctaaaat tttgctcagc tatatttctt 60
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aaatattttc aatacggatt agtgtatctg aaaatatata ttggcgaat ttgttattaa 240
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cagaatgctc actaggactg tctacaaaga ttctggttta taatgatctc acttgtttaa 420
tcacacgtta attaccact attgttgaat atatatatat atatatatat atatatattt 480
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tatatatat 549

<210> 1787

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1787

ttccaaaata gnganancag ttaatttttag acaaataata aataataaat aaatcgaaat 60
aaagtttgat gaacaatatt tattattaaa ttgcgattgc acaatttaag cagtataacg 120
aaatggcggt acggattttg aagcctttta gaaactctct tggaatttgt caagatatca 180
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atgccatcac ttcaattaaa agaaatggag ttgctattaa aggtaattt gaaacccaaa 480
gtgaatctgc acangtatta tctcgtaatg taccctgaga aacgaataga ttatttgnaa 540
tgtttaaac 549

<210> 1788

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1788

gtnagccacc attacatccg gtgagcagtc aggtgcggtg atacgtggtg tttttgatga 60
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gtttgtccgg actgatgagg tgcggcagct gcggcggtga gacacgctga ccacggtga 180

ggaaaatttc tgggtagatc gggtttcgcc ggatgatggc ggaagttgtc atctccgcct 240
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 gtttaccatc tgcgccgcca ataccggatt tacgccatcc ggcgtggaag ccttgcatag 360
 cttcgaagtt ttcacggttg atgtaagttt caccaaaactt caccctttaa tggctttcat 420
 cgcgacgttc agattttggg tatagattga tgaggtcagg ccgtaatcac tgcattagcc 480
 attgagatag catcttccag cgtgtaaagtg cgcaactggc agcaccggcc aaagtttcta 540
 tgctatcga 549

<210> 1789

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1789

aatgcccata cctacnnttc cgcgctgccc cgtcgccctgc tccgccatat caaccaacgt 60
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 caactgctcc cctgcatcgc ccagtgcaat cacttcagtt ttggtgccgc ctaaactgat 180
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 cggattggca atgcaaggcc gccgacaatt cgttatcatg cccgctaaat ttaacgacaa 300
 ggccgtggaa attatcatgc tgtggttcaa aaatttaatg gtttaccgtc ttagccgcga 360
 gatttcgctg cgtgcagaag agatggaaaa acagctagcc tcgatggcat ttaccccatg 420
 cggcagccag gacatggcga agatgggctg ggttcctcga tgggatcgca cagcgatgcg 480
 ttaacgcacg ttncaatggc aaattgtatc tggcgccaaa gaagaaaaat ctccgtttcg 540
 gtgataaac 549

<210> 1790

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1790

gcgagaccaa tgtcacccggc ttaacaatct atcaaatttg ccgggcccgtc gactggacaa 60
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 gtcagcgata cgctgcaaag tgtacaagtg tcatatatgt tctgtagtcg tgtctgcata 180
 tcgatccgtt ttgccattgc cttgaaaacg ccatattgta tgtactttac gtagttatat 240
 ccaacttttg aattaaatgt gttttaagtg tttaatgtta ttttcctaaa tcttgtattt 300
 gattagtaac ccttaatcat ggatagaagg aagctttcca cttctggtga tactttatac 360
 caaatattag ccattccaaa aactgccact caagatgaag ttaagaaaag ttataggaaa 420
 ttggcggttg agtaccatcc tgataagacc caaataatcc agaggcgtct gaaaaattaa 480
 agaagtaacc gacccatatg atactagcga tgcagcaaaa gaacatatat gacaattatg 540
 gtcttagga 549

<210> 1791

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1791

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aatcggcggt gcgcncnaac gtattacctg ggaagggttcg cagaaccagg atgcggatgt 60
cagcagcgac ggtaaattta tggtaatggt cagctccaat ggtgggcagc agcacattgc 120
caaacaagat ctggcaacgg gaggcgtaca agttctgtcg tccacgttcc tggatgaaac 180
gccaaagtctg gcacctaacg gcaactatggt aatctacagc tcttctcagg ggatgggatc 240
cgtgctgaat ttggtttcta cagatgggcg tttcaaagcg cgtcttccgg caactgatgg 300
acagggtcaaa ttccctgcct ggtcgccgta tctgtgataa taattaattg aatagtaaag 360
gaatcattga aatgcaactg aacaaagtgc tgaaagggct gatgattgct ctgctgttat 420
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tcgagctgcg gaggataacc cagcagactg gaggagtttc gaaagatgga aggatccagt 540
cccaattcc
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549

<210> 1792

<211> 248

<212> DNA

<213> Ctenocephalides felis

<400> 1792

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cagagacttc atatgctttg atggtaataa ctttctgagt cctgatgcat ttgataacga 60
aaaaattaaa gaacgaaaat taacttacia ggcaaggaaa aacgatagag aaactatgtg 120
tcccaaaaata taggaaaaac aagaattatc aaaataatct aaatatattt acaatgtaat 180
aaaatattat atataaaaaat aaaaaaacgt catnnttcaa aaaaaaaaaa aaaaaaaaaa 240
aaaaaaac
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248

<210> 1793

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1793

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aatccacaat tgttacncgt aacaaatcga atcattgaac gttcgcgcga gactcgctct 60
gcttatctcg ccgcataga acaagcgaaa acttcgaccg ttcacgttc gcagttggca 120
tgcggttaacc tggcacacgg tttcgctgcc tgccagccag aagacaaagc ctctttgaaa 180
agcatgttgc gtaacaatat cgccatcatc acctctata acgacatgct ctccgcgcac 240
cagccttatg aacactatcc agaaatcatt cgtaaagccc tgcatgaagc gaatgcggtt 300
ggtcagggtg cgggcgggtg tccggcgatg tgtgatggtg tcaccaggg gcaggatgga 360
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cataacatgt ttgatggtgc tctgttcttc ggtgtgtgcg acaagattgt ccggtctgac 480
gatggcagcc tgtcgtttgt catttctctg ggtgttgtcc gctggacgat ggagcggtt 540
gcaaataaa
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549

<210> 1794

<211> 446

<212> DNA
 <213> Ctenocephalides felis

<400> 1794
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 tatgggtagt tgtgctaata gaggagggtta ttaccattat tcatattctg tagtgagggg 120
 ttgtgataga atagtaccag ttgacatata tgtaccagga tgcctccaa ctgcagaagc 180
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 gtggatataga aaataaatta ttgaaaagga gaataattaat tataaaaaat atgctatatc 300
 aaaagtgtag aattatgttt acagtaatgt aaacaaattt tattttttct tcactaatta 360
 ttgaaaataa tatgttcata atcctatagc agaatttaat aaataaaaaac acatttttaa 420
 aatgaaaaaa aaaaaaaaaa aaaaan 446

<210> 1795
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1795
 attcatttca atattgggtg aaatcagtat gaattcatta ttaagttcaa tcattattgt 60
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 agatgattac tgtaatctaa attgtacaaa tggaccaaata gtaggatgca caaaaccgga 180
 tgtacctaga gactgccaaa actttaaact tgtgaatata acagaacgta tgaaaaaggc 240
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 agatgggtgta cacactccaa ttgctgcaaa gatgcccaac ttaacgtgga atatagcgct 360
 cgccaagtta gcagaatata acgtgaagca atgcgaaatg aagcacgatt gtgctaaaac 420
 tagacatggt cacactggtc aaaacctatt ttttatggca ctactctcag cccataaaaa 480
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 gatataaga 549

<210> 1796
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1796
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 gtctcggcac acatcattat aattaaatta ttagtatcat ttccattaat ttattttact 120
 ggcgtcaata tgacggtatc aaacgacgaa ttagttgaat ctttttaaagc tttagggttta 180
 agtgaacaaa aggcgaaaga aacgttaaaa aatacagttg ttacgaaaaa tttaacatta 240
 gcattacatg aggtgagggg cattattttg ccccaaggag ctggttcttt aatctattat 300
 gtggcaacaa aaatcaaacc acagattata gatcaattgc ctgtacttgt aaaatatata 360
 tcaacatcaa aattagacac aacagttaga gttgatgagg ccttgcaatt tatgttgtct 420
 catttaaatg gatatacaat cgatgaattt gagaaggctt gtggaattgg gttgtgtaca 480
 cctgaacaaa ttgaaaaagc agaaatgagg cttgtggaac ataaagaggc aattttgaga 540
 acgatacag 549

<210> 1797
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1797
 antccatata atcgggttcgc gaactgggttc gaacacatat ctgtgtacac gtgttagtat 60
 caaattaatt attaaaagat ataacgatcg aatcatataa gatattttgt gattatccgc 120
 gagagaaaga ataaccgctt cgctgacgta gttttgggta tcagttcatt tgattcggac 180
 gttccggcaa cttgttagta aacatgagtt tctgtgagaa caataactac acggtggatg 240
 aatgttctta tgaaaggatt aaagagacga cagaatttct aattcagaaa accaaatata 300
 gaccaaaaat tggattatc tgtggatccg gaataggacc cctggctgac aatttacaaa 360
 atgcagattc ctctgattac agtcaaattc ccaactttcc cgtaagcaca gttccgggtc 420
 ataaaggctg acttgatatt ggcaccttgg gtggaatcga ggtcctttgc atgcaaggac 480
 gttttcatta ttatgaaggc tattcgtgaa tagtgtgttt cggtngagta tgaaatactg 540
 gcataccat 549

<210> 1798
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1798
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 gatgaattac ctgatgggtg ttgtggcttt gtttttctt aacgccgtca tttttctttt 120
 catgttaagt aaatatttca ctaacaaaca aattttacca aactcattt taagccttgc 180
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 cggcagtaca ctgatccaga caaagtcgaa tgatgtttct attttctata ttttcgcca 300
 actcagtttt atttgtttaa cctcgctggc gctcttttgc tatggaaaag acaacatcct 360
 tgacaacaat aagaaaaaaa cggaatcct gttgctggcg ctgatccctt ttttagtttt 420
 tccccttctg gcacacaatc tgagcagtta taacgctgac tattctttgt atgtcgcgat 480
 actgtcggac aaccatactg cgacctgggg aataacttca aaatattggt ttgctgnggc 540
 ttttactgt 549

<210> 1799
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1799
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 atcctccagt gtctattaat ccaactgctc cagtcacttg tgattccaat atgcctactg 180
 gatctgtggg attgaccacc tccccttcca gctttcaagg aaaatattac ccgcattctg 240

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 acccctcacc ttctgggtga ggacctatca atgtgcagca aatattctcc cgacgtcagc 420
 gcctggacaa attggagctc accacctttg agactgtact cccccaaagc gcgtatgcc 480
 tatgaatcat gcatccagca tanggccag cattctaatt ttnaaatcac ttatggctat 540
 nanggcacc 549

<210> 1800

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1800

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 ttgtgcatta tgaaccctcc acgtcttatt ctgccggcgt gcctcaccat taataaactg 540
 nttgagcat 549

<210> 1801

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1801

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 tatatgtatg tgattaatgc cgaaatctgc acagcaaaac aaanaccaa acatttatgt 180
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 ncgtattat 549

<210> 1802

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1802

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 actacagnt 549

<210> 1803

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 1803

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 gtatacgaa 549

<210> 1804

<211> 280

<212> DNA

<213> *Ctenocephalides felis*

<400> 1804

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<210> 1805

<211> 528

<212> DNA

<213> Ctenocephalides felis

<400> 1805

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atgtataatt agataaaata tattttataa atatgtaata ataaacatta aacatgcatt 480
attgtaaata aaggcaattg ttcattatga aaaaaaaaaa aaaaaaaaaa 528
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<210> 1806

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1806

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tctcctgtca gcatgtctac acgatggtac cctctttatc aaagaggcaa tccacagctg 180
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ttgctaaaga agaagtattg aattttctaatt atttcaaaaa agatgaagag agcagttcaa 480
gaagattgaa aagntgaatg aatcaaagaa cttataaaat acctggaaga ataaaatcac 540
cgncaccan 549
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<210> 1807

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1807

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gcggggattg tcggnntaag caataccgng tttacactgc gtgtttcggt caccacgctg 180
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ttgnaaaag 549
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ataaagacaa ggataaaatg aaacagacta aattagattt tagtaaaaag ggaaagaaga 300
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 ttgacaataa acaaatggac agtgagccgt gtgtgtaccg tcttcagatc tgattccgtg 540
 tgaacctct 549

<210> 1811

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1811

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<210> 1812

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1812

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<210> 1813

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1813

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tgtgcangaa caggcttaag ggtcatgcga cccagactct gaagaaangt acctgatgcn 480
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ctttgccga 549

<210> 1814

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 1814

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tcggcgtcac aggttgccgt gagacaaagg taccgggaaa ctgtaaagga aaggccaggc 480
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taactggta 549

<210> 1815

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 1815

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ttggtcgtg 549

<210> 1816
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1816
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 cctacaaagg tagaagaagc cgatagtgtt gaaagagatt tggccaactt cccaaggcca 180
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 ggatgcaaa 549

<210> 1817
 <211> 87
 <212> DNA
 <213> Ctenocephalides felis

<400> 1817
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 ccagtttagcg tactggttgg cgctgat 87

<210> 1818
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1818
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 gaatatgtca tgtatgcaa tatattaact gaattgataa cttaatagat caaaagcaat 480
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 nttttatca 549

<210> 1819
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1819
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 atccgataat ttatgttcca ctttccaggc ttgtctgtaa tcgggggataa tagaaatatg 180
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 ggcgtgttta caacgtcgtg actgggaaaa ccctgcgtta cccaacttaa tcgcttnagc 480
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 cagctgatg 549

<210> 1820
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1820
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 aatcgtcgcc gtaaccgcca ctccctacgg tgccggagga cacggaagca gtggcggcgg 180
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 tctttatcca ccagaaatta attaaaaatt tgaattaaca atgaataata tgtatttttg 540
 ataatttga 549

<210> 1821
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1821
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 aattgcatga tatcaactgg attgtagcca actgcacaac acctgctaatt tattttcata 180
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 cgttgttgag acatccagaa gctaagagtt cttttgatca aatgacagag aacactgaat 300
 ttatcagaat gattccagaa gaaggaccag cagcatcaga tcccagctct gtcaagaagt 360

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 tggataattc tattgcaatt gctagagtag agcaaatttc tcctttccca tatgatttga 480
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 catgggtgc 549

<210> 1822

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1822

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 cattccatgt ggcgcccgca aaccaacttg tgatcaagtt tgctcaagac aacactcatg 180
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 aaacgtcgc 549

<210> 1823

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1823

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 tagtaaggat cgtgatctcc agtcctgtg gagctgtaga tagccagaat atgggttggt 480
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<210> 1824

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1824

09919660

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<210> 1825

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1825

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<210> 1826

<211> 541

<212> DNA

<213> Ctenocephalides felis

<400> 1826

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<210> 1827
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1827
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<210> 1828
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

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<210> 1829
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

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<210> 1830

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1830

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<210> 1831

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1831

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<210> 1832

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1832

09991936-1201

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<210> 1833

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1833

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<210> 1834

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1834

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<210> 1838

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1838

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<210> 1839

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1839

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<210> 1840

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1840


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<212> DNA

<213> Ctenocephalides felis

<400> 1841

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<213> Ctenocephalides felis

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 aancaattt 549

<210> 1844
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 <213> Ctenocephalides felis

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 ggtgttgtgt gtgagttcga ctggaatgat ggaaatggtc aggaaggatg gcctccaatg 180
 gatggcagcg aaggaataag aattaccgat atcgatacat caggaatatt tgattcanat 240
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 aggcgttttt cgttatgtat aaataaggag cacaccatgc aatatgccat tgcagggttg 360
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<210> 1845
 <211> 549
 <212> DNA
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 ctatgcacat atggataaga ttgctgctgc cgaatctatt ttcggtgagc ggggtgtgca 180
 tgggtatttt gtgctttctg cggctgcggg tctgtttgtc gatgccggtg tcggtccggt 240
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0991936-11101

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<210> 1846

<211> 549

<212> DNA

<213> Ctenocephalides felis

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<210> 1847

<211> 549

<212> DNA

<213> Ctenocephalides felis

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<210> 1848

<211> 508

<212> DNA

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<400> 1848

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<210> 1859

<211> 613

<212> DNA

<213> Ctenocephalides felis

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<210> 1860

<211> 613

<212> DNA

<213> Ctenocephalides felis

<400> 1860

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<210> 1861

<211> 2739

<212> DNA

<213> Ctenocephalides felis

<220>

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taaatgatat ataaattaat ttcgatctct taataaaagt attatttcaa ttaccttatt 180

tgatgagaaa atg cac aac aaa atc ctg gtc ctg gtt gtt tac cat gtc 229

Met His Asn Lys Ile Leu Val Leu Val Val Tyr His Val

1

5

10

gtc ctg atg ttt acc atg gta gtc gcc aag act aca cat gaa gac acc 277

Val Leu Met Phe Thr Met Val Val Ala Lys Thr Thr His Glu Asp Thr

15

20

25

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Asn Asp Asn Ser Thr Asp Val Leu Leu Glu Leu Pro Lys Ser Met Asn

30

35

40

45

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Val Pro Pro Val Ser His Ile Phe Gln Ala Thr Pro Gly Asp Leu Cys	
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Pro Ala Phe Asp Asp Ala Asp Arg Phe Thr Gln Thr Glu Leu Leu Ser	
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Arg Leu Thr Asn Asp Cys Arg Tyr Asp Lys Leu Glu Arg Pro Leu Gly	
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Pro His Asn Gly Ala Gly Pro Leu Pro Val Ala Ala Arg Ile Tyr Val	
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Lys Ile Trp Val Pro His Val Phe Val Ala Asn Glu Arg Ser Ser Gln	
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Gln Asp Leu Gly Arg Gly Ile Arg Val Phe Pro Pro Pro Leu Val Lys	
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Ala Arg Ser Cys Ser Ser Leu Asp Arg Ser Asn Gly Ser Gly Asn Phe	
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Tyr Tyr Leu	
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<212> PRT
<213> Ctenocephalides felis

<400> 1862

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Ser	Thr	Asp	Val	Leu	Leu	Glu	Leu	Pro	Lys	Ser	Met	Asn	Asn	Asp	Glu
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Lys	Leu	Phe	Leu	Thr	Thr	Gly	Gln	Ile	Leu	Glu	Gly	Thr	Thr	Val	Tyr
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Ser	Asp	Glu	Leu	Ala	Asp	Phe	Asn	Ile	Thr	Glu	Asn	Thr	Val	Asn	Val
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Thr	Ala	Asp	Lys	Val	Ala	Leu	Lys	Glu	Ile	Thr	Pro	Asp	His	His	His
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Pro	Val	Val	Thr	Ser	Thr	Gln	Lys	Thr	Ile	Leu	Asn	Ala	Ser	Thr	Thr
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Val	Glu	Lys	Asn	Pro	Gly	His	Gln	Thr	Ser	Ile	Ser	Glu	Glu	Ser	Thr
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Thr	Lys	Leu	Val	Lys	Thr	Thr	Thr	Glu	Asp	Asn	His	Leu	Gly	Val	Lys
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Val Ser His Ile Phe Gln Ala Thr Pro Gly Asp Leu Cys Pro Ala Phe	180	185	190
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Asn Asp Cys Arg Tyr Asp Lys Leu Glu Arg Pro Leu Gly Pro His Asn	210	215	220
Gly Ala Gly Pro Leu Pro Val Ala Ala Arg Ile Tyr Val Tyr Phe Ile	225	230	235
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Val Pro His Val Phe Val Ala Asn Glu Arg Ser Ser Gln Val Met Gly	290	295	300
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Gly	Arg	Gly	Ile	Arg	Val	Phe	Pro	Pro	Pro	Leu	Val	Lys	Ala	Arg	Ser	565	570	575
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Asp	Ala	Ala	Ser	Asp	Gln	Ile	Ser	Val	Cys	Val	Asp	Gly	Glu	Asn	Glu	610	615	620
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Glu	Ile	Ser	Met	Trp	Ile	Asp	Lys	Arg	Ser	Arg	Ile	Cys	Phe	Pro	Ile	645	650	655
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<400> 1863

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 Ser Thr Asp Val Leu Leu Glu Leu Pro Lys Ser Met Asn Asn Asp Glu
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 Val Glu Lys Asn Pro Gly His Gln Thr Ser Ile Ser Glu Glu Ser Thr
 115 120 125

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Thr Lys Leu Val Lys Thr Thr Thr Glu Asp Asn His Leu Gly Val Lys	
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Arg Arg Arg Lys Asn Val Glu Leu Lys Lys Val Asn Ser Lys Tyr Ile	
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Leu Lys Ser Thr Leu Thr Pro Arg Leu Ala Arg Lys Glu Phe His Ala	
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090196-4201
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Leu	Leu	Ile	His	Phe	Met	Leu	Gln	Thr	Gly	Phe	Gln	Tyr	Leu	Pro	Glu	100	105	110	
Ser	Ile	Val	Val	Val	Phe	Leu	Gly	Ala	Leu	Ile	Gly	Leu	Ile	Ile	Asn	115	120	125	
Leu	Met	Ser	Ser	Lys	Asn	Ile	Ala	Asn	Trp	Lys	Asn	Glu	Glu	Ala	Phe	130	135	140	
Ser	Pro	Thr	Ala	Phe	Phe	Leu	Val	Leu	Leu	Pro	Pro	Ile	Ile	Phe	Glu	145	150	155	160
Ser	Gly	Tyr	Asn	Leu	His	Lys	Gly	Asn	Phe	Phe	Gln	Asn	Ile	Gly	Ser	165	170	175	
Ile	Leu	Val	Phe	Ala	Ile	Phe	Gly	Thr	Ala	Ile	Ser	Ala	Phe	Val	Val				

09991936-112101

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Ile Val Leu Thr Thr Ala Val Leu Glu Ser Asn Asn Pro Leu Met Thr		
	260	265 270
Thr Ala Glu Ala Val Val Ser Gly Leu Asn Arg Phe Cys Leu Met Phe		
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Phe Ala Ser Ala Gly Ile Gly Val Val Phe Ala Leu Ile Ser Ala Leu		
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305	310	315 320
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His Tyr Thr His Phe Asn Leu Ser Thr Val Thr Gln Ile Thr Met Gln		
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Gln Thr Met Arg Thr Leu Ala Phe Ile Ala Glu Thr Cys Val Phe Ala		
	370	375 380
Tyr Leu Gly Met Ala Ile Phe Ser Phe Arg His Arg Val Glu Pro Ala		
385	390	395 400
Leu Val Ile Trp Ser Ile Val Leu Cys Leu Ile Gly Arg Ala Ala Asn		
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Thr Lys Lys Met Ala Phe Ile Met Trp Phe Ser Gly Leu Arg Gly Ala		

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His Val Ile Ile Thr Thr Thr Leu Ile Ile Val Leu Cys Thr Thr Leu		
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Lys Lys Thr Arg Ser Ala Thr Arg Arg Thr Arg Arg Gln Gln Lys Ala		
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Gln Val Arg Arg Gly Leu Glu Phe Ile Arg Leu Asp His Lys Tyr Leu		
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Arg Pro Phe Phe Thr Arg Arg Phe Thr His Gln Glu Leu Lys Asp Cys		
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Lys Ser Gln Met Thr Asp Leu Thr Asn Lys Trp Tyr Gln Thr Ile Arg		
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<210> 1869

<211> 2080

<212> DNA

<213> Ctenocephalides felis

<400> 1869

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<210> 1870

<211> 1824

<212> DNA

<213> *Ctenocephalides felis*

<400> 1870

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<210> 1871

<211> 1824

<212> DNA

<213> Ctenocephalides felis

<400> 1871

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<211> 2383

<212> DNA

<213> Ctenocephalides felis

<220>

<221> CDS

<222> (60)..(845)

<400> 1872

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1 5 10 15

gaa att gaa ctt atc att aag gca tcc acc ata gat ggt cga cgt aaa 155
Glu Ile Glu Leu Ile Ile Lys Ala Ser Thr Ile Asp Gly Arg Arg Lys
20 25 30

gga gct tgt tta ttt tgt caa gaa tat ttt atg gat ttg tac ctg cta 203
Gly Ala Cys Leu Phe Cys Gln Glu Tyr Phe Met Asp Leu Tyr Leu Leu
35 40 45

gca gaa ctt aaa act atc agt tta aag gtt aca aca gta gac atg caa 251
Ala Glu Leu Lys Thr Ile Ser Leu Lys Val Thr Thr Val Asp Met Gln
50 55 60

aaa cct cca ccg gat ttc cgt aca aat ttt gaa gcg acg ccg ccg cca 299
Lys Pro Pro Pro Asp Phe Arg Thr Asn Phe Glu Ala Thr Pro Pro Pro
65 70 75 80

att cta atc gac aat ggc ctg gcc gtg cta gaa aac gac aaa atc gaa 347
Ile Leu Ile Asp Asn Gly Leu Ala Val Leu Glu Asn Asp Lys Ile Glu
85 90 95

cgt cac atc atg aag agt gtc cct gga gga cac aat ctt ttt gtt cag 395

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<210> 1873
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 <212> PRT
 <213> Ctenocephalides felis

<400> 1873

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 35 40 45

Ala Glu Leu Lys Thr Ile Ser Leu Lys Val Thr Thr Val Asp Met Gln
 50 55 60

Lys Pro Pro Pro Asp Phe Arg Thr Asn Phe Glu Ala Thr Pro Pro Pro
 65 70 75 80

Ile Leu Ile Asp Asn Gly Leu Ala Val Leu Glu Asn Asp Lys Ile Glu
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Arg His Ile Met Lys Ser Val Pro Gly Gly His Asn Leu Phe Val Gln
 100 105 110

Asp Lys Glu Val Ala Thr Leu Ile Glu Asn Leu Tyr Ser Lys Leu Lys
 115 120 125

Leu Val Leu Val Lys Lys Asp Asp Val Lys Ser Asn Ser Leu Leu Ser
 130 135 140

His Leu Arg Lys Ile Asn Asp His Leu Ala Arg Arg Gly Thr Arg Phe
 145 150 155 160

Leu Thr Gly Asp Thr Met Cys Cys Phe Asp Cys Glu Leu Met Pro Arg
 165 170 175

Leu Gln His Ile Arg Val Ala Ala Lys Tyr Phe Val Glu Phe Glu Ile
 180 185 190

Pro Ser Asn Leu Thr Ala Leu Trp Arg Tyr Met Tyr His Met Tyr Gln
 195 200 205

Leu Asp Ala Phe Thr Gln Ser Cys Pro Ala Asp Gln Asp Ile Ile Asn
 210 215 220

His Tyr Lys Leu Gln Gln Gln Arg Ile Ser Asn Asn Gln Met Met Lys
225 230 235 240

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<210> 1874
<211> 2383
<212> DNA
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<210> 1875

<211> 786

<212> DNA

<213> Ctenocephalides felis

<400> 1875

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<210> 1876

<211> 786

<212> DNA

<213> Ctenocephalides felis

<400> 1876

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<210> 1877

<211> 457

<212> DNA

<213> Ctenocephalides felis

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<210> 1878

<211> 1291

<212> DNA

<213> Ctenocephalides felis

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<210> 1879

<211> 1291

<212> DNA

<213> Ctenocephalides felis

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<210> 1880

<211> 279

<212> DNA

<213> Ctenocephalides felis

<400> 1880

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<210> 1881
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 <212> DNA
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<210> 1882
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 <212> DNA
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<220>
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<400> 1882
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 Ala Leu Gln Ser Ile Asp Asn Arg Gln Thr Asn Asn Cys Ser Glu Ile
 20 25 30
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 Gly Val Asp Gly Phe Phe Cys Leu Asn Cys Ser Val Thr Ala Phe Cys
 35 40 45
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 Gly Arg Gly Pro Thr Gly Glu Phe Asn Thr Val Ser Thr Ser Pro Cys
 50 55 60
 agt tct ggt gaa gtt tgc agt acc tgg gcg ggt aga tgt tct gca gat 239
 Ser Ser Gly Glu Val Cys Ser Thr Trp Ala Gly Arg Cys Ser Ala Asp
 65 70 75
 cca agc cca tgt ttc tcg gaa ggt tct ata act tgc acc ggt cca gga 287
 Pro Ser Pro Cys Phe Ser Glu Gly Ser Ile Thr Cys Thr Gly Pro Gly
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 gtt ttt cct gat ccg tat gat tgt cag cgt tat cat gaa tgt aaa act 335

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aat gtt ata gaa aat aat tgt agc ctg aac atg aat cat caa tcg tgt	431
Asn Val Ile Glu Asn Asn Cys Ser Leu Asn Met Asn His Gln Ser Cys	
130 135 140	
aaa cgc tta caa ttt cat tgt gat act ata gga gat gaa aat gct tgg	479
Lys Arg Leu Gln Phe His Cys Asp Thr Ile Gly Asp Glu Asn Ala Trp	
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ccg agc aat aga aat ata tat tat agg tgc acc gaa aaa acc ttg tgg	527
Pro Ser Asn Arg Asn Ile Tyr Tyr Arg Cys Thr Glu Lys Thr Leu Trp	
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Phe Asn Ser Asn Lys Ile Leu Tyr Pro Leu Leu Tyr Arg Cys Asp Glu	
180 185 190	
agt gag ata tat gat gca gtg cag aga gtt tgc gta aga gat gaa acc	623
Ser Glu Ile Tyr Asp Ala Val Gln Arg Val Cys Val Arg Asp Glu Thr	
195 200 205	
acc acg acg cct gcc aca acg cca acc gaa tct tcc acg tct agt gaa	671
Thr Thr Thr Pro Ala Thr Thr Pro Thr Glu Ser Ser Thr Ser Ser Glu	
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225 230 235	
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Glu Thr Thr Thr Thr Ser Ala Thr Thr Pro Thr Glu Ser Ser Thr Ser	
240 245 250 255	
agt gaa aca acc acg acg tct gcc aca aca cca acc gaa tct tcc acg	815
Ser Glu Thr Thr Thr Thr Ser Ala Thr Thr Pro Thr Glu Ser Ser Thr	
260 265 270	
tct agt gaa aca acc acg acg tct gcc aca aca cca acc gaa tct tcc	863
Ser Ser Glu Thr Thr Thr Thr Ser Ala Thr Thr Pro Thr Glu Ser Ser	
275 280 285	
acg tct agt gaa aca acc acg acg tct gcc aca aca cca acc gaa tct	911

Thr Ser Ser Glu Thr Thr Thr Thr Ser Ala Thr Thr Pro Thr Glu Ser	
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Pro Ser Thr Lys Pro Thr Ser Thr Glu Thr Pro Ala Thr Lys Pro Pro	
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caa gaa ata cca tgc aaa caa caa ggt ccg ctg atg caa gat cca cac	1055
Gln Glu Ile Pro Cys Lys Gln Gln Gly Pro Leu Met Gln Asp Pro His	
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Asp Cys His Ala Tyr Tyr Thr Cys Leu Glu Ile Gly Ser Leu Pro Lys	
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His Phe Asn Cys Asn Lys Gly Ala Tyr Phe Asn Thr Val Lys Leu Lys	
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Cys Val Lys Gly Asn Cys Glu Asn Ser Thr Glu Ile Pro Leu Pro Glu	
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ctt cca gac att tgc gat gaa gta gga cct ttg gtg caa gat cca aac	1247
Leu Pro Asp Ile Cys Asp Glu Val Gly Pro Leu Val Gln Asp Pro Asn	
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Asp Cys Arg Lys Tyr Tyr Ser Cys Val Thr Ile Gly Lys Glu Pro Glu	
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His Phe Thr Cys Asn Lys Gly Ala Tyr Phe Asp Arg Glu Arg Leu Arg	
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Cys Val Arg Gly Ser Cys	
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<210> 1883
 <211> 453
 <212> PRT
 <213> Ctenocephalides felis

<400> 1883

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Ser Pro Cys Phe Ser Glu Gly Ser Ile Thr Cys Thr Gly Pro Gly Val
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Phe Pro Asp Pro Tyr Asp Cys Gln Arg Tyr His Glu Cys Lys Thr Ala
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Asn Glu Ser Ser Lys Pro Val Glu Cys Gly Gly Tyr Lys Ala Tyr Asn
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Val Ile Glu Asn Asn Cys Ser Leu Asn Met Asn His Gln Ser Cys Lys
 130 135 140

Arg Leu Gln Phe His Cys Asp Thr Ile Gly Asp Glu Asn Ala Trp Pro
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Ser Asn Arg Asn Ile Tyr Tyr Arg Cys Thr Glu Lys Thr Leu Trp Phe
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Asn Ser Asn Lys Ile Leu Tyr Pro Leu Leu Tyr Arg Cys Asp Glu Ser
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Glu Ile Tyr Asp Ala Val Gln Arg Val Cys Val Arg Asp Glu Thr Thr
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 405 410 415
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<210> 1884

<211> 1477
 <212> DNA
 <213> Ctenocephalides felis

<400> 1884

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<210> 1885
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 <212> DNA
 <213> Ctenocephalides felis

<400> 1885

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<210> 1886

<211> 1359

<212> DNA

<213> Ctenocephalides felis

<400> 1886

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 tatagtatca caatgaaatt gtaagcgttt acacgattga tgattcatgt tcaggctaca 960
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 atttgcagtt ttacattcat gataacgctg acaatcatal ggatcaggaa aaactcctgg 1080
 accggtgcaa gttatagaac cttccgagaa acatgggctt ggatctgcag aacatctacc 1140
 cgcccaggta ctgcaaactt caccagaact acatggactt gtagacacgg tgttgaattc 1200
 acccgtaggt cctctaccac aaaaagctgt gacgtgcag ttgagacaaa aaaaaccatc 1260
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<210> 1887

<211> 406

<212> DNA
 <213> Ctenocephalides felis

<220>
 <221> CDS
 <222> (20)..(262)

<400> 1887

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            1             5             10

gtg atc atg ata agt gcc gaa tat gct gac gta gat gtg tgc caa gat 100
Val Ile Met Ile Ser Ala Glu Tyr Ala Asp Val Asp Val Cys Gln Asp
            15             20             25

ttg gac gat gga act ttt ctt gct gat tca aac aat tgc caa aat ttc 148
Leu Asp Asp Gly Thr Phe Leu Ala Asp Ser Asn Asn Cys Gln Asn Phe
            30             35             40

ttc att tgt gat gga ggc cga gct tgg aaa atg tat tgt cca gga tca 196
Phe Ile Cys Asp Gly Gly Arg Ala Trp Lys Met Tyr Cys Pro Gly Ser
            45             50             55

ctt tta tgg aat gat cac gaa gga aca tgt gat tac gca caa aat gta 244
Leu Leu Trp Asn Asp His Glu Gly Thr Cys Asp Tyr Ala Gln Asn Val
            60             65             70             75

gaa tgt tac caa cca gaa taaaacattt taatatctga cagcgatttt 292
Glu Cys Tyr Gln Pro Glu
            80

ctgaaactat atttcatact actgtttataa taaattttatc ttcattgctc tcctcctata 352

aattttattcc gttttaataa aatcaatata aagacaaaaa aaaaaaaaaa aaaa 406

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<210> 1888
 <211> 81
 <212> PRT
 <213> Ctenocephalides felis

<400> 1888

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Met Lys Gly Thr Leu Leu Ile Leu Ser Cys Leu Val Ile Met Ile Ser
      1             5             10             15

Ala Glu Tyr Ala Asp Val Asp Val Cys Gln Asp Leu Asp Asp Gly Thr
      20             25             30

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Phe Leu Ala Asp Ser Asn Asn Cys Gln Asn Phe Phe Ile Cys Asp Gly
 35 40 45

Gly Arg Ala Trp Lys Met Tyr Cys Pro Gly Ser Leu Leu Trp Asn Asp
 50 55 60

His Glu Gly Thr Cys Asp Tyr Ala Gln Asn Val Glu Cys Tyr Gln Pro
 65 70 75 80

Glu

<210> 1889
 <211> 406
 <212> DNA
 <213> Ctenocephalides felis

<400> 1889
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 aggagagcaa tgaagataaa tttattataa cagtagtatg aaatatagtt tcagaaaatc 120
 gctgtcagat attaaaatgt tttattctgg ttggtaacat tctacatttt gtgcgtaatc 180
 acatgttcct tcgtgatcat tccataaaag tgatcctgga caatacattt tccaagctcg 240
 gcctccatca caaatgaaga aattttggca attgtttgaa tcagcaagaa aagttccatc 300
 gtccaaatct tggcacacat ctacgtcagc atattcggca cttatcatga tcacaagaca 360
 tgataatatt aataatgttc ctttcatttt gttattttta attaac 406

<210> 1890
 <211> 243
 <212> DNA
 <213> Ctenocephalides felis

<400> 1890
 atgaaaggaa cattattaat attatcatgt cttgtgatca tgataagtgc cgaatatgct 60
 gacgtagatg tgtgccaaaga tttggacgat ggaacttttc ttgctgattc aaacaattgc 120
 caaaatttct tcatttgtga tggaggccga gcttggaataa tgtattgtcc aggatcactt 180
 ttatggaatg atcacgaagg aacatgtgat tacgcacaaa atgtagaatg ttaccaacca 240
 gaa 243

<210> 1891
 <211> 243
 <212> DNA
 <213> Ctenocephalides felis

<400> 1891

ttctggttgg taacattcta cattttgtgc gtaatcacat gttccttcgt gatcattcca 60
 taaaagtgat cctggacaat acattttcca agctcggcct ccatcacaaa tgaagaaatt 120
 ttggcaattg tttgaatcag caagaaaagt tccatcgtcc aaatcttggc acacatctac 180
 gtcagcatat tcggcactta tcatgatcac aagacatgat aatattaata atgttccttt 240
 cat 243

<210> 1892

<211> 974

<212> DNA

<213> Ctenocephalides felis

<400> 1892

ttaatgtcga cggaacgcct ttaacagtaa ataaagaagt atttgcacatca ttggatgagc 60
 ccgcaccagg agtagtacct actcctgaac ctacacctgt accgaaaccc gagcaaaaat 120
 gtaaaaaagt aaaatttagt tgcgtgaatt cgtgcagttc acccgaaatg cagtattgtc 180
 cggaatatag agcagatccg gttaaggaat cctgtagccc agatcaagtg tgcgctgac 240
 aaagtggata tctacagtgc accactaaaag aaagtacagt ctgcaaagta caaggtttca 300
 aatgtccgtc accatcgaga ttttatccaa atataaatga ttgtcaaagc tattattatt 360
 gtgacgaaaa tagtatagga acccaatatt attgccccgc aaattttgca tatgatccgt 420
 tacgtcataa ttgctggacct atggctctgg gcacaaaatg ctatacagtt acatgtcctg 480
 cacagcctaa ggtgcttccg tacattggtg ataaatcatt gtacgtcgta tgtatggccg 540
 gaagaggaac cgtattgcaa tgcgaagaac ccgcccaggtt ttccccaagg agcgaaacct 600
 gtgtcgggca atgcccagca cgtggaaaat ttgctttcaa gaacgacgca acatgccgga 660
 agttcttcac gtgtttacgt cctaaaggag agccagttcc tgatcaatgt ccgattggaa 720
 cagtatttaa ccaagctact caaagctgca acacaggaac ttgagagagg aaacctaat 780
 tatattaata tattgatgaa gtattcaaca aaagaaacta taaaaatat gtactttgtt 840
 ttactttatg tggttatataa aaaaatatta tgggtgaaca caggctcgca aatatgataa 900
 ggcatttaag aattttacaa tttagatttt tttaaatcca tgaatatatt tgttctaate 960
 aaaaaaaaaa aaaa 974

<210> 1893

<211> 974

<212> DNA

<213> Ctenocephalides felis

<400> 1893

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 gtaaaaaagt aaaatttagt tgcgtgaatt cgtgcagttc acccgaaatg cagtattgtc 180
 cggaatatag agcagatccg gttaaggaat cctgtagccc agatcaagtg tgcgctgac 240
 aaagtggata tctacagtgc accactaaaag aaagtacagt ctgcaaagta caaggtttca 300
 aatgtccgtc accatcgaga ttttatccaa atataaatga ttgtcaaagc tattattatt 360
 gtgacgaaaa tagtatagga acccaatatt attgccccgc aaattttgca tatgatccgt 420
 tacgtcataa ttgctggacct atggctctgg gcacaaaatg ctatacagtt acatgtcctg 480
 cacagcctaa ggtgcttccg tacattggtg ataaatcatt gtacgtcgta tgtatggccg 540

gaagaggaac cgtattgcaa tgcgaagaac ccgccgagtt ttccccaagg agcgaaacct 600
 gtgtcgggca atgccgagca cgtggaaaat ttgctttcaa gaacgacgca acatgccgga 660
 agttcttcac gtgtttacgt cctaaaggag agccagttcc tgatcaatgt ccgattggaa 720
 cagtatttaa ccaagctact caaagctgca acacaggaac ttgcgagagg aaacctaaat 780
 tatattaata tattgatgaa gtattcaaca aaagaaacta tacaaaatat gtactttgtt 840
 ttactttatg tggtatataa aaaaatatta tgggtgaaca caggctcgca aatatgataa 900
 ggcatttaag aattttacaa tttagatttt tttaaatcca tgaatatatt tgttctaate 960
 aaaaaaaaaa aaaa 974

<210> 1894

<211> 1043

<212> DNA

<213> Ctenocephalides felis

<400> 1894

tggtttatat cacattggtt tttattagtt ttgtggcggt atctgtcggt accgcttatg 60
 atggtgagtt taatgtcgac ggaacgcctt taacagtaaa taaagaagta tttgcatcat 120
 tggatgagcc cgcaccagga gtagtaccta ctctgaacc tacacctgta ccgaaacccg 180
 agcaaaaatg taaaaaagta aaatttagtt gcgtgaattc gtgcagttca ccgaaatgc 240
 agtattgtcc ggaaatagga gcagatccgg ttaaggaatc ctgtagocca gatcaagtgt 300
 gcgctgatca aagtggatat ctacagtgca ccactaaaga aagtacagtc tgcaaagtac 360
 aaggtttcaa atgtccgtca ccacgcagat tttatccaaa tataaatgat tgtcaaagct 420
 attattattg tgacgaaaat agtataggaa cccaatatta ttgccccgca aattttgcat 480
 atgatccgtt acgtcataat tgcggacctt tggctctggg caaaaaatgc tatacagtta 540
 catgtcctgc acagcctaag gtgcttccgt acattggtga taaatcattg tacgtcgtat 600
 gtatggccgg aagaggaacc gtattgcaat gcgaagaacc cgccgagttt tccccaagga 660
 gcgaaacctg tgtcgggcaa tgccgagcac gtggaaaatt tgctttcaag aacgacgcaa 720
 catgccggaa gttcttcacg tggttacgtc cttaaaggaga gccagttcct gatcaatgtc 780
 cgattggaac agtatattaac caagctactc aaagctgcaa cacaggaact tgcgagagga 840
 aacctaaatt atattaatat attgatgaag tattcaacaa aagaaactat acaaaatatg 900
 tactttgttt tactttatgt gttatataaa aaaatattat gggtgaacac aggtctgcaa 960
 atatgataag gcatttaaga attttacaat ttagattttt ttaaatccat gaatatattt 1020
 gttctaatac aaaaaaaaaa aaa 1043

<210> 1895

<211> 1043

<212> DNA

<213> Ctenocephalides felis

<400> 1895

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 aattcttaaa tgccttatca tatttgcgag cctgtgttca accataatat ttttttatat 120
 aacacataaa gtaaaacaaa gtacatattt tgtatagttt cttttgttga atacttcac 180
 aatatattaa tataatttag gtttcctctc gcaagttcct gtgttgcagc tttgagtagc 240
 ttggttaaat actgttccaa tcggacattg atcaggaact ggctctcctt taggacgtaa 300
 acacgtgaag aacttccggc atgttgcgtc gttcttgaaa gcaaattttc cacgtgctcg 360

gcattgcccg acacaggttt cgctccttgg ggaaaactcg gcgggttctt cgcattgcaa 420
 tacggttcct ctcccgcca tacatacgac gtacaatgat ttatcaccaa tgtacggaag 480
 caccttaggc tgtgcaggac atgtaactgt atagcatttt gtgccagag ccataggtcc 540
 gcaattatga cgtaacggat catatgcaaa atttgcgggg caataatatt gggttcctat 600
 actattttcg tcacaataat aatagctttg acaatcattt atatttgat aaaatctoga 660
 tgggtgacgga catttgaaac cttgtacttt gcagactgta ctttcttttag tgggtgactg 720
 tagatatcca ctttgatcag cgcacacttg atctgggcta caggattcct taaccggatc 780
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 tactcctggg gcgggctcat ccaatgatgc aaatacttct ttatttactg ttaaaggcgt 960
 tccgtcgaca ttaaaactcac catcataagc ggtaacgaca gataacgcca caaaactaat 1020
 aaaaaccaat gtgatataaa aca 1043

<210> 1896

<211> 1062

<212> DNA

<213> Ctenocephalides felis

<220>

<221> CDS

<222> (19)..(873)

<400> 1896

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 1 5 10

gtg gcg tta tct gtc gtt acc gct tat gat ggt gag ttt aat gtc gac 99
 Val Ala Leu Ser Val Val Thr Ala Tyr Asp Gly Glu Phe Asn Val Asp
 15 20 25

gga acg cct tta aca gta aat aaa gaa gta ttt gca tca ttg gat gag 147
 Gly Thr Pro Leu Thr Val Asn Lys Glu Val Phe Ala Ser Leu Asp Glu
 30 35 40

ccc gca cca gga gta gta cct act cct gaa cct aca cct gta ccg aaa 195
 Pro Ala Pro Gly Val Val Pro Thr Pro Glu Pro Thr Pro Val Pro Lys
 45 50 55

ccc gag caa aaa tgt aaa aaa gta aaa ttt agt tgc gtg aat tcg tgc 243
 Pro Glu Gln Lys Cys Lys Lys Val Lys Phe Ser Cys Val Asn Ser Cys
 60 65 70 75

agt tca ccc gaa atg cag tat tgt ccg gaa ata gga gca gat ccg gtt 291
 Ser Ser Pro Glu Met Gln Tyr Cys Pro Glu Ile Gly Ala Asp Pro Val
 80 85 90

aag gaa tcc tgt agc cca gat caa gtg tgc gct gat caa agt gga tat	339
Lys Glu Ser Cys Ser Pro Asp Gln Val Cys Ala Asp Gln Ser Gly Tyr	
95 100 105	
cta cag tgc acc act aaa gaa agt aca gtc tgc aaa gta caa ggt ttc	387
Leu Gln Cys Thr Thr Lys Glu Ser Thr Val Cys Lys Val Gln Gly Phe	
110 115 120	
aaa tgt ccg tca cca tcg aga ttt tat cca aat ata aat gat tgt caa	435
Lys Cys Pro Ser Pro Ser Arg Phe Tyr Pro Asn Ile Asn Asp Cys Gln	
125 130 135	
agc tat tat tat tgt gac gaa aat agt ata gga acc caa tat tat tgc	483
Ser Tyr Tyr Tyr Cys Asp Glu Asn Ser Ile Gly Thr Gln Tyr Tyr Cys	
140 145 150 155	
ccc gca aat ttt gca tat gat ccg tta cgt cat aat tgc gga cct atg	531
Pro Ala Asn Phe Ala Tyr Asp Pro Leu Arg His Asn Cys Gly Pro Met	
160 165 170	
gct ctg ggc aca aaa tgc tat aca gtt aca tgt cct gca cag cct aag	579
Ala Leu Gly Thr Lys Cys Tyr Thr Val Thr Cys Pro Ala Gln Pro Lys	
175 180 185	
gtg ctt ccg tac att ggt gat aaa tca ttg tac gtc gta tgt atg gcc	627
Val Leu Pro Tyr Ile Gly Asp Lys Ser Leu Tyr Val Val Cys Met Ala	
190 195 200	
gga aga gga acc gta ttg caa tgc gaa gaa ccc gcc gag ttt tcc cca	675
Gly Arg Gly Thr Val Leu Gln Cys Glu Glu Pro Ala Glu Phe Ser Pro	
205 210 215	
agg agc gaa acc tgt gtc ggg caa tgc cga gca cgt gga aaa ttt gct	723
Arg Ser Glu Thr Cys Val Gly Gln Cys Arg Ala Arg Gly Lys Phe Ala	
220 225 230 235	
ttc aag aac gac gca aca tgc cgg aag ttc ttc acg tgt tta cgt cct	771
Phe Lys Asn Asp Ala Thr Cys Arg Lys Phe Phe Thr Cys Leu Arg Pro	
240 245 250	
aaa gga gag cca gtt cct gat caa tgt ccg att gga aca gta ttt aac	819
Lys Gly Glu Pro Val Pro Asp Gln Cys Pro Ile Gly Thr Val Phe Asn	
255 260 265	
caa gct act caa agc tgc aac aca gga act tgc gag agg aaa cct aaa	867
Gln Ala Thr Gln Ser Cys Asn Thr Gly Thr Cys Glu Arg Lys Pro Lys	
270 275 280	

tta tat taatatattg atgaagtatt caacaaaaga aactatacaa aatatgtact 923
 Leu Tyr
 285

ttgttttact ttatgtgtta tataaaaaaa tattatgggtt gaacacaggc tcgcaaatat 983
 gataaggcat ttaagaattt tacaatttag attttttttaa atccatgaat atatttggtc 1043
 taatcaaaaa aaaaaaaaaa 1062

<210> 1897
 <211> 285
 <212> PRT
 <213> Ctenocephalides felis

<400> 1897
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 Val Thr Ala Tyr Asp Gly Glu Phe Asn Val Asp Gly Thr Pro Leu Thr
 20 25 30
 Val Asn Lys Glu Val Phe Ala Ser Leu Asp Glu Pro Ala Pro Gly Val
 35 40 45
 Val Pro Thr Pro Glu Pro Thr Pro Val Pro Lys Pro Glu Gln Lys Cys
 50 55 60
 Lys Lys Val Lys Phe Ser Cys Val Asn Ser Cys Ser Ser Pro Glu Met
 65 70 75 80
 Gln Tyr Cys Pro Glu Ile Gly Ala Asp Pro Val Lys Glu Ser Cys Ser
 85 90 95
 Pro Asp Gln Val Cys Ala Asp Gln Ser Gly Tyr Leu Gln Cys Thr Thr
 100 105 110
 Lys Glu Ser Thr Val Cys Lys Val Gln Gly Phe Lys Cys Pro Ser Pro
 115 120 125
 Ser Arg Phe Tyr Pro Asn Ile Asn Asp Cys Gln Ser Tyr Tyr Tyr Cys
 130 135 140
 Asp Glu Asn Ser Ile Gly Thr Gln Tyr Tyr Cys Pro Ala Asn Phe Ala
 145 150 155 160
 Tyr Asp Pro Leu Arg His Asn Cys Gly Pro Met Ala Leu Gly Thr Lys

	165		170		175
Cys Tyr Thr Val Thr Cys Pro Ala Gln Pro Lys Val Leu Pro Tyr Ile					
	180		185		190
Gly Asp Lys Ser Leu Tyr Val Val Cys Met Ala Gly Arg Gly Thr Val					
	195		200		205
Leu Gln Cys Glu Glu Pro Ala Glu Phe Ser Pro Arg Ser Glu Thr Cys					
	210		215		220
Val Gly Gln Cys Arg Ala Arg Gly Lys Phe Ala Phe Lys Asn Asp Ala					
	225		230		235 240
Thr Cys Arg Lys Phe Phe Thr Cys Leu Arg Pro Lys Gly Glu Pro Val					
		245		250	255
Pro Asp Gln Cys Pro Ile Gly Thr Val Phe Asn Gln Ala Thr Gln Ser					
	260		265		270
Cys Asn Thr Gly Thr Cys Glu Arg Lys Pro Lys Leu Tyr					
	275		280		285

<210> 1898

<211> 1062

<212> DNA

<213> Ctenocephalides felis

<400> 1898

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aaagaagtat ttgcatcatt ggatgagccc gcaccaggag tagtacctac tcctgaacct 180
acacctgtac cgaaacccga gcaaaaatgt aaaaaagtaa aatttagttg cgtgaattcg 240
tgcagttcac ccgaaatgca gtattgtccg gaaataggag cagatccggt taaggaatcc 300
tgtagcccag atcaagtgtg cgctgatcaa agtggatatc tacagtgcac cactaaagaa 360
agtacagtct gcaaagtaca aggtttcaaa tgtccgtcac catcgagatt ttatccaaat 420
ataaatgatt gtcaaagcta ttattattgt gacgaaaata gtataggaac ccaatattat 480
tgccccgcaa attttgcata tgatccgtta cgtcataatt gcggacctat ggctctgggc 540
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aaatcattgt acgtcgtatg tatggccgga agaggaaccg tattgcaatg cgaagaaccc 660
gccgagtttt ccccaaggag cgaaacctgt gtcgggcaat gccgagcacg tggaaaattt 720
gctttcaaga acgacgcaac atgccggaag ttcttcacgt gtttacgtcc taaaggagag 780
ccagttcctg atcaatgtcc gattggaaca gtatttaacc aagctactca aagctgcaac 840
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agaaactata caaaatatgt actttgtttt actttatgtg ttatataaaa aaatattatg 960
gttgaacaca ggctcgcaaa tatgataagg catttaagaa ttttacaatt tagatttttt 1020

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taaatccatg aatatatttg ttctaataca aaaaaaaaaa aa

1062

<210> 1899

<211> 855

<212> DNA

<213> Ctenocephalides felis

<400> 1899

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gagcaaaaat gtaaaaaagt aaaatttagt tgcgtgaatt cgtgcagttc acccgaaatg 240
cagtattgtc cggaaatagg agcagatccg gttaaggaat cctgtagccc agatcaagtg 300
tgcgctgac aaagtggata tctacagtgc accactaaag aaagtacagt ctgcaaagta 360
caagggtttca aatgtccgtc accatcgaga ttttatccaa atataaatga ttgtcaaagc 420
tattattatt gtgacgaaaa tagtatagga acccaatatt attgccccgc aaattttgca 480
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tgtatggccg gaagaggaac cgtattgcaa tgcgaagaac ccgccagatt ttccccaaagg 660
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acatgccgga agttcttcac gtgtttacgt cctaaaggag agccagttcc tgatcaatgt 780
ccgattggaa cagtatttaa ccaagctact caaagctgca acacaggaac ttgcgagagg 840
aaacctaat tatat 855

<210> 1900

<211> 855

<212> DNA

<213> Ctenocephalides felis

<400> 1900

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tactgttcca atcggacatt gatcaggaac tggctctcct ttaggacgta aacacgtgaa 120
gaacttccgg catgttgctg cgttcttgaa agcaaatttt ccacgtgctc ggcattgccc 180
gacacagggt tcgtctcctg gggaaaactc ggcggttctc tcgcattgca atacggttcc 240
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ctgtgcagg catgtaactg tatagcattt tgtgccaga gccataggtc cgcaattatg 360
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gtcacaataa taatagcttt gacaatcatt tatatttgga taaaatctcg atggtgacgg 480
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ttccggacaa tactgcattt cgggtgaact gcacgaattc acgcaactaa attttacttt 660
tttacatttt tgctcgggtt tcggtacagg ttaggttca ggagtaggta ctactcctgg 720
tgccgggtca tccaatgatg caaatacttc tttatttact gttaaaggcg ttccgtcgac 780
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tgtgatataa aacat 855

<210> 1901
 <211> 1875
 <212> DNA
 <213> Ctenocephalides felis

<220>
 <221> CDS
 <222> (44)..(1633)

<400> 1901

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                                         1

acg ggg att caa ata ata gct tcc aaa gaa cca aaa cca agg cag ttt 103
Thr Gly Ile Gln Ile Ile Ala Ser Lys Glu Pro Lys Pro Arg Gln Phe
   5              10              15              20

gaa gat gcg ttg gca ctc aca ggt ttt gga aaa ttc aat tac ctt ctt 151
Glu Asp Ala Leu Ala Leu Thr Gly Phe Gly Lys Phe Asn Tyr Leu Leu
              25              30              35

ctg gtc gtg agt gga tgc gta tta gta tgt gtt ttg atg gaa act ctt 199
Leu Val Val Ser Gly Cys Val Leu Val Cys Val Leu Met Glu Thr Leu
              40              45              50

gga atg agt ttt gtc gtt cct tca gca caa tgt gat ctg gaa tta aca 247
Gly Met Ser Phe Val Val Pro Ser Ala Gln Cys Asp Leu Glu Leu Thr
              55              60              65

aca aaa caa aaa gga ata tta agc gct ata gct ttt ata ggt att ata 295
Thr Lys Gln Lys Gly Ile Leu Ser Ala Ile Ala Phe Ile Gly Ile Ile
              70              75              80

agc agt tca cat tta tgg gga ttt tta gcc gat acg aga ggg agg cgg 343
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Lys Val Ile Met Pro Thr Leu Leu Leu Ala Phe Phe Cys Thr Leu Ala
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tct agt ttt gta aat tca gtt tgg ctg ttt att ttg ctg cga tat ttc 439
Ser Ser Phe Val Asn Ser Val Trp Leu Phe Ile Leu Leu Arg Tyr Phe
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aat gga ttt ttc gta tct gga gga agt gca aca ata tat gca tat tta 487

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Ser Ser Ile Phe Gly Phe Ala Cys Leu Ala Leu Pro Thr Val Ala Trp	
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Leu Ile Ile Asn Gln Lys Trp Ser Phe Tyr Ile Asp Phe Leu Gly Tyr	
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Thr Tyr Lys Pro Trp Arg Leu Tyr Met Val Ala Cys Gly Leu Pro Ser	
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Leu Leu Cys Cys Phe Ala Leu Trp Lys Leu Pro Glu Ser Pro Lys Phe	
215 220 225	
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Leu Met Asn Gln Gly Arg Asn Glu Glu Ala Arg Gln Ile Ile Ala Lys	
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Met Tyr Arg Ile Asn Thr Gly Lys Pro Glu Ser Glu Phe Pro Val Ser	
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Ser Ile Leu Asp Glu Tyr Pro Gly Val Asp Gly Glu Asn Thr Asn Lys	
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Ile Ile Ser Lys Met Thr Glu Phe Gln Asn Ala His Pro Gly Val Pro	
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Asp Leu Tyr Pro Thr Gln Leu Arg Ala Met Ala Val Cys Ile Ser Leu	
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Leu Ile Ala Cys Gly Val Ile Ala Phe Phe Ile Pro Asn Ile Tyr Gln	
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<210> 1902
<211> 530
<212> PRT
<213> Ctenocephalides felis

<400> 1902
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Arg Gly Arg Arg Lys Val Ile Met Pro Thr Leu Leu Leu Ala Phe Phe
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Cys Thr Leu Ala Ser Ser Phe Val Asn Ser Val Trp Leu Phe Ile Leu
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Asn Thr Asn Lys Thr Lys Lys Ser Phe Leu Arg Thr Val Trp Asp Gln						
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Thr Ala Pro Leu Phe Met Gly Glu His Met Lys Lys Thr Leu Ile Ala						
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Cys Thr Leu Gln Phe Gly Ile Phe Ala Thr Ser Asn Gly Met Tyr Met						
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Trp Phe Pro Asp Ile Ile Ser Lys Met Thr Glu Phe Gln Asn Ala His						
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Ser Gly Thr Ser Leu Ile Ala Cys Gly Val Ile Ala Phe Phe Ile Pro		
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<210> 1903
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 <212> DNA
 <213> Ctenocephalides felis

<400> 1903

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<210> 1904

<211> 1590

<212> DNA

<213> Ctenocephalides felis

<400> 1904

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<210> 1905

<211> 1590

<212> DNA

<213> Ctenocephalides felis

<400> 1905

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<210> 1906

<211> 381

<212> DNA

<213> Ctenocephalides felis

<400> 1906

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<210> 1907

<211> 381

<212> DNA

<213> Ctenocephalides felis

<400> 1907

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<211> 2191

<212> DNA

<213> Ctenocephalides felis

<400> 1908

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<210> 1909

<211> 2191

<212> DNA

<213> Ctenocephalides felis

<400> 1909

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<210> 1910

<211> 1968

<212> DNA

<213> Ctenocephalides felis

<400> 1910

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<210> 1911

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<212> DNA

<213> Ctenocephalides felis

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<210> 1912

<211> 673

<212> DNA

<213> Ctenocephalides felis

<400> 1912

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<213> Ctenocephalides felis

<400> 1913

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<210> 1914

<211> 3126

<212> DNA

<213> Ctenocephalides felis

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Trp Ser Gly Trp Val Cys Val Leu Leu Val Gly Leu Val Thr Gly Ala				
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Ile Ala Gly Val Ile Asp Ile Gly Ala Ser Trp Met Thr Asp Leu Lys				
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aac ggt gtt tgc cca caa gca ttc tgg ttg aat aga gaa caa tgt tgt				800
Asn Gly Val Cys Pro Gln Ala Phe Trp Leu Asn Arg Glu Gln Cys Cys				
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Trp Ser Leu Asn Glu Thr Thr Phe Asp Asp Gly Asn Cys Ser Gln Trp				
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ctg act tgg cct gag gtt ttc gga caa cct aga act ggg gcg ggg gct				896
Leu Thr Trp Pro Glu Val Phe Gly Gln Pro Arg Thr Gly Ala Gly Ala				
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Tyr Ile Ile Ala Tyr Leu Phe Tyr Ile Ile Trp Ala Leu Ile Phe Ala				
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Ser Leu Ala Ala Ser Leu Val Arg Met Phe Ala Pro Tyr Ala Cys Gly				
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Ser Gly Ile Pro Glu Ile Lys Thr Ile Leu Ser Gly Phe Ile Ile Arg				
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Gly Tyr Leu Gly Lys Trp Thr Leu Ile Ile Lys Ser Val Gly Ile Met				
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His Ile Ala Ser Cys Ile Gly Asn Ile Leu Ser Tyr Leu Phe Pro Lys				

325	330	335	
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Tyr Gly Arg Asn Glu Ala Lys Lys Arg Glu Ile Leu Ser Ala Ala Ala			
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Ala Ala Gly Val Ser Val Ala Phe Gly Ala Pro Ile Gly Gly Val Leu			
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375	380	385	
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Arg Ser Phe Phe Cys Ala Leu Ile Ala Ala Phe Ile Leu Arg Ser Ile			
390	395	400	
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Asn Pro Phe Gly Asn Glu His Ser Val Leu Phe Tyr Val Glu Tyr Asn			
405	410	415	
aaa cct tgg ata ttt ttt gaa ctg ata cct ttc ata ggc ctt gga ata			1472
Lys Pro Trp Ile Phe Phe Glu Leu Ile Pro Phe Ile Gly Leu Gly Ile			
420	425	430	435
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Cys Arg Tyr Arg Lys Phe Ser Lys Leu Gly Gln Tyr Pro Val Ala Glu			
455	460	465	
gtt tta gtt gtt gct gtt gca aca gca gtg att gct tat cct aat cct			1616
Val Leu Val Val Ala Val Ala Thr Ala Val Ile Ala Tyr Pro Asn Pro			
470	475	480	
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Tyr Thr Arg Met Asn Thr Ser Gln Leu Ile Tyr Leu Leu Phe Ser Gln			
485	490	495	
tgc ggg att tcc aat tct gat cct ttg tgt gat tac aat cgc aat ttc			1712
Cys Gly Ile Ser Asn Ser Asp Pro Leu Cys Asp Tyr Asn Arg Asn Phe			
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act gat gtt aaa tca gct ata gaa ata gca gca gct ggt cct ggt gtc			1760
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520	525	530	
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Met Thr Val Phe Thr Phe Gly Met Lys Val Pro Cys Gly Leu Phe Ile			
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cca agt tta tgc cta gga gct att atg ggt aga att gtg ggc att gga			1904
Pro Ser Leu Cys Leu Gly Ala Ile Met Gly Arg Ile Val Gly Ile Gly			
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Glu Cys Ser Thr Gly Asp Asn Cys Ile Thr Pro Gly Leu Tyr Ala Met			
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gtg ggc gct gca gct gtt tta ggt ggt gtc act aga atg aca gtt tct			2048
Val Gly Ala Ala Ala Val Leu Gly Gly Val Thr Arg Met Thr Val Ser			
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ctg gtg gta ata atg ttt gaa ctg act ggt ggt gta cgt tat atc gtg			2096
Leu Val Val Ile Met Phe Glu Leu Thr Gly Gly Val Arg Tyr Ile Val			
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Phe Leu Asp Ser Lys Asp Glu Phe Ala His Thr Ser Leu Ala Ala Asp			
680	685	690	
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cac aat ggg cgt ttg ctc ggt gtt ata act aaa aaa gat gtt tta cga			2672
His Asn Gly Arg Leu Leu Gly Val Ile Thr Lys Lys Asp Val Leu Arg			
	820	825	830
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<400> 1915
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 65 70 75 80

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 115 120 125

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Thr Gly Ala Ile Ala Gly Val Ile Asp Ile Gly Ala Ser Trp Met Thr
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Phe Pro Lys Tyr Gly Arg Asn Glu Ala Lys Lys Arg Glu Ile Leu Ser			
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Glu Tyr Asn Lys Pro Trp Ile Phe Phe Glu Leu Ile Pro Phe Ile Gly			
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Leu Tyr Trp Cys Arg Tyr Arg Lys Phe Ser Lys Leu Gly Gln Tyr Pro			
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725 730 735

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755 760 765

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<210> 1916

<211> 3126

<212> DNA

<213> Ctenocephalides felis

<400> 1916

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<210> 1917

<211> 2553

<212> DNA

<213> Ctenocephalides felis

<400> 1917

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<210> 1918

<211> 2553

<212> DNA

<213> Ctenocephalides felis

<400> 1918

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<211> 1181

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<213> Ctenocephalides canis

<220>

<221> CDS

<222> (127)..(432)

<400> 1919

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<210> 1922

<211> 306

<212> DNA

<213> Ctenocephalides felis

<400> 1922

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<210> 1923

<211> 306

<212> DNA

<213> Ctenocephalides felis

<400> 1923

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 <211> 2161
 <212> DNA
 <213> Ctenocephalides felis

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 <222> (107)..(907)

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 Val Ser Arg Met His Arg Val Ala Asp Ile Glu Ser Gly Gly Glu Tyr
 40 45 50
 tca gat ctg gga gta gac ttc cca gta ccc gca att cca cga tct caa 307
 Ser Asp Leu Gly Val Asp Phe Pro Val Pro Ala Ile Pro Arg Ser Gln
 55 60 65
 aaa gct cta gaa tcg gat tcg gaa tat gat tcc ata ttc gat gaa ggc 355
 Lys Ala Leu Glu Ser Asp Ser Glu Tyr Asp Ser Ile Phe Asp Glu Gly
 70 75 80
 cag tta cat cct agc ctc aga gat cag gaa tat ctc cag cat agt cct 403
 Gln Leu His Pro Ser Leu Arg Asp Gln Glu Tyr Leu Gln His Ser Pro
 85 90 95
 cta tgg ggt cag cag tac gta agt gga ggc gct ggt gaa ggc caa caa 451
 Leu Trp Gly Gln Gln Tyr Val Ser Gly Gly Ala Gly Glu Gly Gln Gln

100	105	110	115	
agg ctc aaa cca gat gga agt gca atg aat cat cag caa gta aaa acg				499
Arg Leu Lys Pro Asp Gly Ser Ala Met Asn His Gln Gln Val Lys Thr				
120		125	130	
gat aat ctg ccc gct tat tgt aat cca cct aat ccc tgt cct gtt gga				547
Asp Asn Leu Pro Ala Tyr Cys Asn Pro Pro Asn Pro Cys Pro Val Gly				
135		140	145	
tta aca gaa gag cat ggt tgc acc gag aac ttc gag aac acc gca gcc				595
Leu Thr Glu Glu His Gly Cys Thr Glu Asn Phe Glu Asn Thr Ala Ala				
150		155	160	
ttc agc cgc gac tac cag gcg gct cag caa tgc atg tgc gac ggt gag				643
Phe Ser Arg Asp Tyr Gln Ala Ala Gln Gln Cys Met Cys Asp Gly Glu				
165		170	175	
cat atg ttc cgt tgt ccg tcc tca tta gac gga gac gaa ctg gac gac				691
His Met Phe Arg Cys Pro Ser Ser Leu Asp Gly Asp Glu Leu Asp Asp				
180		185	190	195
tca tcc gaa tca gac gaa cag gac gaa cac cag gac ctt ctg gac atg				739
Ser Ser Glu Ser Asp Glu Gln Asp Glu His Gln Asp Leu Leu Asp Met				
200		205	210	
gaa ggc gga ctt gat act cga act gcg cct gaa atc ttc atg gcg caa				787
Glu Gly Gly Leu Asp Thr Arg Thr Ala Pro Glu Ile Phe Met Ala Gln				
215		220	225	
agg gag tac cga cga tct ggc ttg agt ggg aat aaa cat cat aaa aga				835
Arg Glu Tyr Arg Arg Ser Gly Leu Ser Gly Asn Lys His His Lys Arg				
230		235	240	
aag agt act aat ccc tac ttg cat ggt gag aaa ctc cca gtg gct gct				883
Lys Ser Thr Asn Pro Tyr Leu His Gly Glu Lys Leu Pro Val Ala Ala				
245		250	255	
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Lys Lys Gly Ile Asn Val Val Tyr				
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ccgaataaac aaaagaaaaa totacaaaaa taatttagtt ttcgtttagtc attacatatg				1117

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aacgatcatg tgtctaaata caattatgaa gaagattata tattacatac atgtgaaatc 2017
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<210> 1925

<211> 267

<212> PRT

<213> Ctenocephalides felis

<400> 1925

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Asn	Thr	His	Ala	Tyr	Leu	Thr	Ser	Val	Gln	Glu	Leu	Asp	Asp	Ala	Ile
			20					25					30		

Arg	Ala	Val	Val	Ser	Arg	Met	His	Arg	Val	Ala	Asp	Ile	Glu	Ser	Gly	35	40	45	
Gly	Glu	Tyr	Ser	Asp	Leu	Gly	Val	Asp	Phe	Pro	Val	Pro	Ala	Ile	Pro	50	55	60	
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Asp	Glu	Gly	Gln	Leu	His	Pro	Ser	Leu	Arg	Asp	Gln	Glu	Tyr	Leu	Gln	85	90	95	
His	Ser	Pro	Leu	Trp	Gly	Gln	Gln	Tyr	Val	Ser	Gly	Gly	Ala	Gly	Glu	100	105	110	
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Thr	Ala	Ala	Phe	Ser	Arg	Asp	Tyr	Gln	Ala	Ala	Gln	Gln	Cys	Met	Cys	165	170	175	
Asp	Gly	Glu	His	Met	Phe	Arg	Cys	Pro	Ser	Ser	Leu	Asp	Gly	Asp	Glu	180	185	190	
Leu	Asp	Asp	Ser	Ser	Glu	Ser	Asp	Glu	Gln	Asp	Glu	His	Gln	Asp	Leu	195	200	205	
Leu	Asp	Met	Glu	Gly	Gly	Leu	Asp	Thr	Arg	Thr	Ala	Pro	Glu	Ile	Phe	210	215	220	
Met	Ala	Gln	Arg	Glu	Tyr	Arg	Arg	Ser	Gly	Leu	Ser	Gly	Asn	Lys	His	225	230	235	240
His	Lys	Arg	Lys	Ser	Thr	Asn	Pro	Tyr	Leu	His	Gly	Glu	Lys	Leu	Pro	245	250	255	
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<210> 1926
 <211> 2161
 <212> DNA
 <213> Ctenocephalides felis

<400> 1926

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ttaacaagca tgcattatta tatagatttc acatgtatgt aatatataat cttcttcata 180
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cattagtata tcattattat atatccataa tagaaatgat acgaagtgat ttgcttgata 360
aatataatta cttatatcta tgtcaaatag tgaatgcaaa tcttaaaaaca tacacttatt 420
tcattaaaca cgtatcgtgc actcattgcg tgtaatgtct attacaaaaa tcggataata 480
caatacatta caatggtttc ataatatatt aaattatgga aattataaat gaacattgca 540
cggatacaag agcatcaatg gggcttgaaa cacgttcacc gaaancangt gtaagtttyc 600
caatcaattc ttttctaattg tgaattgttg ttaatgcaac tcttcctttt tcaaatttgt 660
ctcgggatgt aattgagact ttattaaatt tttgtgagct ttttttaatt tcgcaaattgc 720
gcgcattgat ggagactata tttgaaatcg tcctggggta cggaacaaac ttgcaaataa 780
ataatagaga gaaagacaat aagaaatttg atcatacccc aatcggattc caatagcatt 840
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cactgatgtt aaatatgcat gagtatttgt tgtccaaata gacactaaca gaattactga 2040
aattccgaaa gtcacgtgt aatcgcttg cagtggagat cactgtgtac taactcccag 2100
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<210> 1927
 <211> 801
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<213> Ctenocephalides felis

<400> 1927

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cgagtagccg atattgaaa tggtggcgaa tactcagatc tgggagtaga cttcccagta 180
cccgaattc cacgatctca aaaagctcta gaatcggatt cggaatatga ttccatattc 240
gatgaaggcc agttacatcc tagcctcaga gatcaggaat atctccagca tagtcctcta 300
tgggggtcagc agtacgtaag tggaggcgct ggtgaaggcc aacaaaggct caaaccagat 360
ggaagtgcaa tgaatcatca gcaagtaaaa acggataatc tgcccgtta ttgtaatcca 420
cctaattccct gtcctgttgg attaacagaa gagcatgggt gcaccgagaa cttcgagaac 480
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atgttccgtt gtcctcctc attagacgga gacgaactgg acgactcatc cgaatcagac 600
gaacaggacg aacaccagga ccttctggac atggaaggcg gacttgatac tcgaactgcg 660
cctgaaatct tcatggcgca aagggagtac cgacgatctg gcttgagtgg gaataaacat 720
cataaaagaa agagtactaa tccctacttg catggtgaga aactcccagt ggctgctaag 780
aagggtatca acgttgtcta c 801

<210> 1928

<211> 801

<212> DNA

<213> Ctenocephalides felis

<400> 1928

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ttgcgccatg aagatttcag gcgcagttcg agtatcaagt ccgccttcca tgtccagaag 180
gtcctgggtg tgcctcgtt cgtctgattc ggatgagtcg tccagttcgt ctccgtctaa 240
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gtcgcggctg aaggctgcgg tgttctcgaa gttctcgggtg caaccatgct cttctgttaa 360
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ctgatgattc attgcacttc catctggttt gagcctttgt tggccttcac cagcgcctcc 480
acttacgtac tgcctgacccc atagaggact atgctggaga tattcctgat ctctgaggct 540
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<210> 1929

<211> 741

<212> DNA

<213> Ctenocephalides felis

<220>

<221> CDS

<222> (1)..(741)

<400> 1929

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1 5 10 15	
tca cgg atg cat cga gta gcc gat att gaa agt ggt ggc gaa tac tca	96
Ser Arg Met His Arg Val Ala Asp Ile Glu Ser Gly Gly Glu Tyr Ser	
20 25 30	
gat ctg gga gta gac ttc cca gta ccc gca att cca cga tct caa aaa	144
Asp Leu Gly Val Asp Phe Pro Val Pro Ala Ile Pro Arg Ser Gln Lys	
35 40 45	
gct cta gaa tcg gat tcg gaa tat gat tcc ata ttc gat gaa ggc cag	192
Ala Leu Glu Ser Asp Ser Glu Tyr Asp Ser Ile Phe Asp Glu Gly Gln	
50 55 60	
tta cat cct agc ctc aga gat cag gaa tat ctc cag cat agt cct cta	240
Leu His Pro Ser Leu Arg Asp Gln Glu Tyr Leu Gln His Ser Pro Leu	
65 70 75 80	
tgg ggt cag cag tac gta agt gga ggc gct ggt gaa ggc caa caa agg	288
Trp Gly Gln Gln Tyr Val Ser Gly Gly Ala Gly Glu Gly Gln Gln Arg	
85 90 95	
ctc aaa cca gat gga agt gca atg aat cat cag caa gta aaa acg gat	336
Leu Lys Pro Asp Gly Ser Ala Met Asn His Gln Gln Val Lys Thr Asp	
100 105 110	
aat ctg ccc gct tat tgt aat cca cct aat ccc tgt cct gtt gga tta	384
Asn Leu Pro Ala Tyr Cys Asn Pro Pro Asn Pro Cys Pro Val Gly Leu	
115 120 125	
aca gaa gag cat ggt tgc acc gag aac ttc gag aac acc gca gcc ttc	432
Thr Glu Glu His Gly Cys Thr Glu Asn Phe Glu Asn Thr Ala Ala Phe	
130 135 140	
agc cgc gac tac cag gcg gct cag caa tgc atg tgc gac ggt gag cat	480
Ser Arg Asp Tyr Gln Ala Ala Gln Gln Cys Met Cys Asp Gly Glu His	
145 150 155 160	
atg ttc cgt tgt ccg tcc tca tta gac gga gac gaa ctg gac gac tca	528
Met Phe Arg Cys Pro Ser Ser Leu Asp Gly Asp Glu Leu Asp Asp Ser	
165 170 175	
tcc gaa tca gac gaa cag gac gaa cac cag gac ctt ctg gac atg gaa	576

Ser Glu Ser Asp Glu Gln Asp Glu His Gln Asp Leu Leu Asp Met Glu
 180 185 190

ggc gga ctt gat act cga act gcg cct gaa atc ttc atg gcg caa agg 624
 Gly Gly Leu Asp Thr Arg Thr Ala Pro Glu Ile Phe Met Ala Gln Arg
 195 200 205

gag tac cga cga tct ggc ttg agt ggg aat aaa cat cat aaa aga aag 672
 Glu Tyr Arg Arg Ser Gly Leu Ser Gly Asn Lys His His Lys Arg Lys
 210 215 220

agt act aat ccc tac ttg cat ggt gag aaa ctc cca gtg gct gct aag 720
 Ser Thr Asn Pro Tyr Leu His Gly Glu Lys Leu Pro Val Ala Ala Lys
 225 230 235 240

aag ggt atc aac gtt gtc tac 741
 Lys Gly Ile Asn Val Val Tyr
 245

<210> 1930

<211> 247

<212> PRT

<213> Ctenocephalides felis

<400> 1930

Tyr Leu Thr Ser Val Gln Glu Leu Asp Asp Ala Ile Arg Ala Val Val
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Ser Arg Met His Arg Val Ala Asp Ile Glu Ser Gly Gly Glu Tyr Ser
 20 25 30

Asp Leu Gly Val Asp Phe Pro Val Pro Ala Ile Pro Arg Ser Gln Lys
 35 40 45

Ala Leu Glu Ser Asp Ser Glu Tyr Asp Ser Ile Phe Asp Glu Gly Gln
 50 55 60

Leu His Pro Ser Leu Arg Asp Gln Glu Tyr Leu Gln His Ser Pro Leu
 65 70 75 80

Trp Gly Gln Gln Tyr Val Ser Gly Gly Ala Gly Glu Gly Gln Gln Arg
 85 90 95

Leu Lys Pro Asp Gly Ser Ala Met Asn His Gln Gln Val Lys Thr Asp
 100 105 110

Asn Leu Pro Ala Tyr Cys Asn Pro Pro Asn Pro Cys Pro Val Gly Leu

115	120	125
Thr Glu Glu His Gly Cys Thr Glu Asn Phe Glu Asn Thr Ala Ala Phe		
130	135	140
Ser Arg Asp Tyr Gln Ala Ala Gln Gln Cys Met Cys Asp Gly Glu His		
145	150	155
Met Phe Arg Cys Pro Ser Ser Leu Asp Gly Asp Glu Leu Asp Asp Ser		
165	170	175
Ser Glu Ser Asp Glu Gln Asp Glu His Gln Asp Leu Leu Asp Met Glu		
180	185	190
Gly Gly Leu Asp Thr Arg Thr Ala Pro Glu Ile Phe Met Ala Gln Arg		
195	200	205
Glu Tyr Arg Arg Ser Gly Leu Ser Gly Asn Lys His His Lys Arg Lys		
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Ser Thr Asn Pro Tyr Leu His Gly Glu Lys Leu Pro Val Ala Ala Lys		
225	230	235
Lys Gly Ile Asn Val Val Tyr		
245		

<210> 1931

<211> 741

<212> DNA

<213> Ctenocephalides felis

<400> 1931

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ttgcgccatg aagatttcag gcgcagttcg agtatcaagt ccgccttcca tgtccagaag 180
gtcctggtgt tcgtcctggt cgtctgattc ggatgagtcg tccagttcgt ctccgtctaa 240
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ttgagatcgt ggaattgcgg gtactgggaa gtctactccc agatctgagt attcgccacc 660
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ttcttgcaat gatgttaaat a 741

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<210> 1932
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1932
gcgatactgg tggactggt gaag

24

<210> 1933
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1933
ccatcctaatac gactcact atagggc

27

<210> 1934
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1934
gaggtggttg tcttcagtgg ttg

23

<210> 1935
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1935
actcactata gggctcgagc ggc

23

<210> 1936
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1936
caatttttaa cgcattccacg accg

24

<210> 1937
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1937
ccgctcgagc gacccatttc acgacttatt tgaatcg

37

<210> 1938
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
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36

<210> 1939
<211> 40
<212> DNA
<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
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40

<210> 1940

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
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32

<210> 1941

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
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<400> 1941

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21

<210> 1942

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
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<400> 1942

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24

<210> 1943
<211> 24
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<213> Artificial Sequence

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Primer

<400> 1943
cgggtgcaagt tatagaacct tccg

24

<210> 1944
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<213> Artificial Sequence

<220>
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Primer

<400> 1944
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32

<210> 1945
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<212> DNA
<213> Artificial Sequence

<220>
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Primer

<400> 1945
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32

<210> 1946
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<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1946
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<210> 1947
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<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1947
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<210> 1948
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<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1948
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<210> 1949
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1949
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<210> 1950
<211> 23
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1950

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23

<210> 1951

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1951

cacaccaac ctgaccaggc

20

<210> 1952

<211> 31

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1952

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31

<210> 1953

<211> 30

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<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1953

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30

<210> 1954

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Primer

<400> 1954
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24

<210> 1955
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Primer

<400> 1955
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22

<210> 1956
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Primer

<400> 1956
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24

<210> 1957
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<400> 1957

gtttaatatt gcatgtttat tcattaata

29

<210> 1958

<211> 21

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1958

gcgccatgaa gatttcaggc g

21

<210> 1959

<211> 23

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1959

aagtgcaatg aatcatcagc aag

23

TTTTT" GCGTGGG